Vol. I

TRANSCRIPT OF RECORD

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, [redacted] 1925

No. [redacted]165

STEAMSHIP "WILLDOMINO," HER ENGINES, BOILERS, ETC., PETITIONER,

vs.

CITRO CHEMICAL COMPANY OF AMERICA

No. [redacted]166

STEAMSHIP "WILLDOMINO," HER ENGINES, BOILERS, ETC., PETITIONER,

vs.

CHARLES PFIZER & COMPANY, INC.

No. [redacted]167

CONVOY STEAMSHIP COMPANY, LTD., OWNER OF THE STEAMSHIP "WILLDOMINO," HER ENGINES, BOILERS, ETC., PETITIONER,

vs.

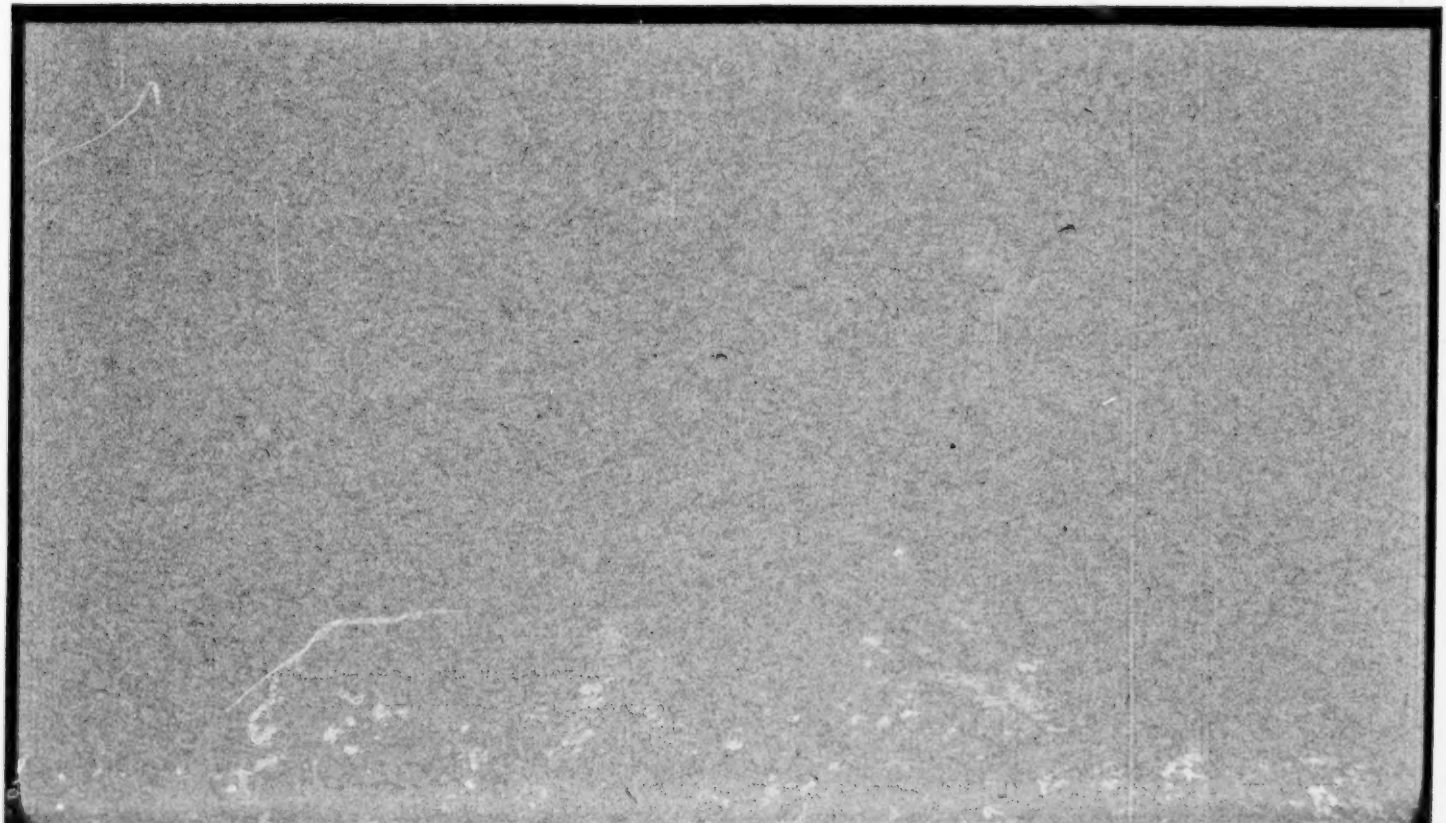
CHARLES PFIZER & COMPANY, INC.

ON WRITS OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT

PETITIONS FOR CERTIORARI FILED SEPTEMBER 3, 1924

CERTIORARI GRANTED OCTOBER 27, 1924

(30,596, 30,597, 30,598)



(30,596, 30,597, 30,598)

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1924

No. 631

STEAMSHIP "WILLDOMINO," HER ENGINES, BOILERS, ETC., PETITIONER,

vs.

CITRO CHEMICAL COMPANY OF AMERICA

No. 632

STEAMSHIP "WILLDOMINO," HER ENGINES, BOILERS, ETC., PETITIONER,

vs.

CHARLES PFIZER & COMPANY, INC.

No. 633

CONVOY STEAMSHIP COMPANY, LTD., OWNER OF THE STEAMSHIP "WILLDOMINO," HER ENGINES, BOILERS, ETC., PETITIONER,

vs.

CHARLES PFIZER & COMPANY, INC.

ON WRITS OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT

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United States District Court.

DISTRICT OF NEW JERSEY.

In Admiralty No. 5208.

CITRO CHEMICAL CO. OF AMERICA,
Libellant,

—against—

The Steamship "WILLDOMINO." 2

Statement—Citro Chemical Co. of America.

Oct. 6, 1920. Libel for Contract $67,500.
Oct. 6, 1920. Stipulation for Libellant's Costs.
Oct. 6, 1920. Monition issued returnable Nov. 9, 1920.
Oct. 9, 1920. Monition returned served.
Oct. 22, 1920. Claim. 3
Oct. 22, 1920. Stipulation for Claimant's Costs.
Oct. 22, 1920. Stipulation for Value.
Nov. 15, 1920. Answer—Convoy Steamship Co.
Jan. 17, 1922. Calendar.
Feb. 2, 1923. Answers to Interrogatories.
Feb. 1, 1923. Trial.
Feb. 2, 1923. Trial Continued.
Feb. 28, 1923. Consent and Order of Subs. of Proctors.

Statement—Citro Chemical Co. of America.

4 Apr. 25, 1923. Memorandum. Filed in 5202.
Apr. 27, 1923. Testimony. Filed in 5202.
May 10, 1923. Bill of Costs.
May 15, 1923. Decree Dismissing Libel.
May 15, 1923. Enrolling.
May 15, 1923. Costs taxed $623.65.
May 15, 1923. Docket Fee.
May 22, 1923. Notice of Appeal.
June 6, 1923. Petition of Appeal and Allocatur.
June 6, 1923. Bond on Appeal.
June 6, 1923. Stipulation for Costs.
5 June 6, 1923. Citation issued returnable July 6, 1923.
June 6, 1923. Citation returned, service acknowledged.

6

Libel and Complaint of Citro Chemical Company of America.

7

TO THE HONORABLE THE JUDGES OF THE DISTRICT COURT OF THE UNITED STATES FOR THE DISTRICT OF NEW JERSEY:

The libel and complaint of CITRO CHEMICAL COMPANY OF AMERICA, Libellant, against steamship "WILLDOMINO," her engines, boilers, etc., in a cause of contract and cargo damage, civil and maritime, alleges and respectfully shows to this Honorable Court as follows:

8

FIRST: At all the times hereinafter mentioned your libellant was and it still is a corporation duly created, organized and existing under and by virtue of the laws of the State of New Jersey.

SECOND: At all the times hereinafter mentioned the said steamship *Willdomino* was a general ship engaged in the common carriage of merchandise for hire between various ports, including the port of Messina, Italy, and the port of New York.

THIRD: The said steamship *Willdomino* is now within this District and within the jurisdiction of this Honorable Court.

9

FOURTH: On or about the tenth day of June, 1920, Ferd. Baller & Co. shipped and placed on board the said steamship *Willdomino*, then lying at the port of Messina, one hundred sixty-eight (168) casks of citrate of lime in good order and condition, to be carried by the said steamship *Willdomino* to the port of New York and there to be delivered in like good order and condition as when shipped unto Messrs. Goldman, Sachs & Co., or their assigns, in consideration of an agreed freight and in accordance with the valid terms of

10 a certain bill of lading then and there signed and delivered to the shipper by the duly authorized agent of the said steamship *Willdomino.*

FIFTH: Thereafter the said steamship *Willdomino* having on board the said merchandise, proceeded from the port of Messina and subsequently, to-wit, on or about the seventh day of August, 1920, arrived at the port of New York where, after considerable delay, the said steamship *Willdomino* tendered delivery of said merchandise, but not in like good order as when shipped, but short, slack and seriously injured and damaged.

11 SIXTH: Prior to the arrival of said steamship *Willdomino* at the port of New York, as aforesaid, and prior to the commencement of this action, your libellant, for value, became the owner and holder of the aforesaid bill of lading and of all rights thereunder and entitled to delivery of the merchandise hereinbefore mentioned, according to the terms and conditions of said bill of lading.

SEVENTH: By reason of the premises your libellant has sustained damage in the sum of Sixty-seven thousand and five hundred ($67,500)
12 Dollars, as nearly as the same can now be estimated, no part of which has been paid, although duly demanded.

EIGHTH: All and singular the premises are true and within the Admiralty and Maritime jurisdiction of the United States and of this Honorable Court.

WHEREFORE, your libellant prays that process in due form of law, according to the course and practice of this Honorable Court in causes of Ad-

miralty and Maritime jurisdiction, issue against 13
the said steamship *Willdomino*, her engines, boilers, etc., and that all persons having or claiming any interest therein be cited to appear and answer all and singular the matters aforesaid; that this Honorable Court be pleased to decree to your libellant its damages with interest and costs and that the steamship *Willdomino*, her engines, etc., be condemned and sold to satisfy the same and that your libellant may have such other and further relief as in law and justice it may be entitled to receive.

HARRINGTON, BIGHAM & ENGLAR, 14
64 Wall Street,
Borough of Manhattan,
New York City.

State of New Jersey, }
County of Bergen, } *ss.*:

W. W. WHITE, being duly sworn, deposes and says that he is Secretary and General Manager of Citro Chemical Company of America, the libellant herein; that he has read the foregoing libel and knows the contents thereof and that the same is true to the best of his knowledge, information 15
and belief.

That the reason this verification is made by deponent and not by libellant is that libellant is a corporation.

W. W. WHITE.

Sworn to before me this
6th day of October, 1920.

C. J. PENGILLY,
Notary Public.
(Seal)

Answer to Libel and Complaint of Citro Chemical Company of America.

16

TO THE HONORABLE THE JUDGES OF THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF NEW JERSEY:

The answer of CONVOY STEAMSHIP COMPANY, LTD., claimant and owner of the "S. S. WILLDOMINO" to the libel and complaint of CITRO CHEMICAL COMPANY OF AMERICA against the "S. S. WILLDOMINO," her engines, boilers, etc., in a cause of contract and cargo cargo damage, civil and maritime, alleges and respectfully shows to

17 this Honorable Court as follows:

FIRST: It denies that it has any knowledge or information sufficient to constitute a belief as to the allegations contained in the FIRST article of the libel.

SECOND: It admits the allegations contained in the SECOND article of the libel.

THIRD: It admits the allegations contained in the THIRD article of the libel.

18 FOURTH: It admits the allegations contained in the FOURTH article of the libel, except it denies that the 168 casks of citrate of lime referred to therein were in good order and condition when delivered to the said *S. S. Willdomino.*

FIFTH: It denies the allegations contained in the FIFTH article of the libel except it admits that the said *S. S. Willdomino,* having on board the said merchandise, proceeded from the port of Messina and subsequently, to-wit: on or about the

7th day of August, 1920, arrived at the port of New York, where it tendered delivery of said merchandise to the libellant. 19

SIXTH: It denies that it has any knowledge or information sufficient to constitute a belief regarding the allegations contained in the SIXTH article of the libel.

SEVENTH: It denies the allegations contained in the SEVENTH article of the libel except it admits that it has not paid the sum of $67,500 or any part thereof to the libellant. 20

EIGHTH: It denies the truth of the premises, but admits the jurisdiction of the United States and of this Honorable Court.

FOR A FIRST, SEPARATE AND DISTINCT DEFENSE TO THE LIBEL HEREIN, THE CLAIMANT ALLEGES AS FOLLOWS:

NINTH: The goods for the alleged damage of which the within libel was brought were accepted for carriage by the *S. S. Willdomino* pursuant to the valid terms of a certain bill of lading which constituted the contract of carriage between the 21 shippers of said goods and the vessel, and the terms, stipulations, exceptions and conditions of which are binding upon the libellant. The claimant and the *S. S. Willdomino* have performed all and singular the duties and obligations laid upon them under said bill of lading. The said bill of lading contained the following, among other terms, stipulations, exceptions and conditions:

> "to be transported by the good steamship *Willdomino*, Captain to

New York with liberty to call at intermediate ports or any port or ports in or out of the customary route in any order to receive and discharge coal, cargo, passengers, and for any other purposes,

"IT IS MUTUALLY AGREED AS FOLLOWS, FIRST: The ship and carrier shall not be liable for loss or damage occasioned by the perils of the seas or other waters, by fire from any cause or wheresoever occurring, by barratry of the Master or crew, by enemies, pirates, robbers or thieves, by arrest and restraint of princes, rulers, or people, by explosion, bursting of boilers, of breakage of shafts, or any latent defect in hull, machinery or appurtenances, or unseaworthiness of the ship even existing at time of shipment or sailing on the voyage, provided the owners have exercised due diligence to make the vessel seaworthy, by collision, stranding or other accidents of navigation of whatsoever kind even when occasioned by the negligence, default or error in judgment of the pilot, master, mariners or other servants of the shipowner nor for any loss or damage caused by heat, decay, putrefaction, vermin, rust, sweat, change of character, shrinkage, leakage, breakage nor for any loss or damage arising from the nature of the goods or the insufficiency of the packages; nor for any country damages; nor for the obliteration, errors, insufficiency or absence of marks or numbers, address or description; nor for risk of craft, hulk and transshipment; nor for any loss nor damage caused by the pro-

longation of the voyage; nor for any loss nor damage occasioned by causes beyond his control. Fault of master and crew in the navigation or management of the ship will not liberate the consignees from contributing their proportion in general average. 25

"EIGHTH: The ship has liberty of filling up and/or bunkering at any port or ports in or out of the way.

"AND FINALLY: In accepting this bill of lading the shipper, owner and consignee of goods agree to be bound by all its stipulations, exceptions and conditions, whether written or printed, as fully as if they were all signed by such shipper, owner or consignee." 26

TENTH: The claimant exercised due diligence to make the steamship *Willdomino* in all respects seaworthy and properly manned, equipped and supplied for the voyage called for by the said bill of lading, and the said steamship *Willdomino* was, in fact, in all respects seaworthy, properly manned, equipped and supplied at the beginning of said voyage and the cargo was in every respect properly loaded, stowed, cared for, and tendered for delivery. 27

ELEVENTH: If there was any loss of or damage to any of the merchandise referred to in the libel herein, which is not admitted, it was due to one or more of the following causes mentioned in the exemptions in the clauses of the bill of lading enumerated in the NINTH article of this answer for the consequences of which the ship and car-

28 rier were each specifically exempted by the terms of said bill of lading:

(a) Perils of the seas or other waters.

(b) Breakage of shafts, or any latent defect in hull, machinery or appurtenances, or unseaworthiness of the ship even existing at time of shipment or sailing on the voyage, provided the owners have exercised due diligence to make the vessel seaworthy.

(c) Collision, stranding or other acci-
29 dents of navigation of whatsoever kind, even when occasioned by the negligence, default or error in judgment of the pilot, master, mariners or other servants of the shipowner.

(d) Loss or damage caused by heat, decay, putrefaction, vermin, rust, sweat, change of character, shrinkage, leakage, breakage.

(e) Damage arising from the nature of the goods or the insufficiency of the packages.

30 (f) Loss or damage caused by the prolongation of the voyage.

(g) Loss or damage occasioned by causes beyond the carrier's control.

FOR A SECOND, SEPARATE AND DISTINCT DEFENSE TO THE LIBEL HEREIN, CLAIMANT ALLEGES AS FOLLOWS:

TWELFTH: The Act of the Congress of the United States approved February 13, 1893, en-

titled "Limitation of Liability for Errors of Navigation, Dangers of the Sea, Acts of God, etc.," and commonly known as the "Harter Act," provides that

> "If the owner of any vessel transporting merchandise or property to or from any port in the United States of America shall exercise due diligence to make the said vessel in all respects seaworthy and properly manned, equipped and supplied, neither the vessel, her owner or owners, agent or charterers, shall become or be held responsible for damage or loss resulting from faults or errors in navigation or in the management of said vessel, nor shall the vessel, her owner or owners, charterers, agent or master be held liable for losses arising from the dangers of the sea or other navigable waters, acts of God, or public enemies, or the inherent defect, quality or vice of the thing carried, or from insufficiency of package, or seizure under legal process, or for loss resulting from any act or omission of the shipper or owner of the goods, its agent or representative, or from saving or attempting to save life or property at sea, or from any deviation in rendering such service."

THIRTEENTH: At all the times mentioned in the libel herein the steamship *Willdomino* was engaged in the transportation of the merchandise for the alleged damage to which this libel was brought from the port of Messina, Sicily, to New York, a port in the United States of America, and the claimant had exercised due diligence to make

said vessel, in all respects, seaworthy and properly manned, equipped and supplied, pursuant to and in accordance with the terms and provisions of the said Harter Act.

FOURTEENTH: Any damage to or loss of the libellant's goods, which is not admitted, was due to causes within the exceptions provided by the said Harter Act and was due either to faults or errors in navigation or in the management of the said vessel, dangers of the sea or other navigable waters or the inherent defect, quality or vice of the thing carried or from insufficiency of package, or to an act or omission of the shipper or owner of the goods, his agent or representative, and for such losses or damages the steamship *Willdomino* and the claimant are exempted from liability to the libellant by virtue of the provisions of the said Harter Act.

FOR A THIRD, SEPARATE, DISTINCT AND PARTIAL DEFENSE TO THE LIBEL HEREIN, THE CLAIMANT RESPECTFULLY ALLEGES AS FOLLOWS:

FIFTEENTH: The bill of lading under which the goods in question were accepted on board the *S. S. Willdomino,* for transportation to New York as alleged in the first, separate and distinct defense and which constituted the contract of carriage between the shipper of said goods and the vessel and carrier and the terms, stipulations, exceptions and conditions of which are binding upon the libellant, contained the following, among other, terms, stipulations, exceptions and conditions:

"THIRD: The value of package receipted for as above does not exceed the sum of

$100, unless otherwise stated herein, on which basis the rate of freight is adjusted." 37

The number of packages received on board said vessel under said bill of lading was 168 casks, and the freight agreed to be paid for their transportation from Messina to New York was adjusted upon the basis of the agreed valuation of $100 per cask, and had the value of said casks been unrestricted an additional freight would have been charged. If the claimant or the *S. S. Willdomino* is under any liability to the libellant herein, which is denied, then said liability is restricted to the aforesaid agreed valuation of the merchandise moved under said bill of lading and is limited to the sum of $100 per package, or in the case of the present shipment, to a total liability of $16,800.00. 38

WHEREFORE, the claimant prays that the libel herein be dismissed with costs and that the claimant may have such other and further relief as the justice of the cause may require.

HUNT, HILL & BETTS,
Proctors for Claimant,
Office & P. O. Address,
120 Broadway,
Borough of Manhattan,
New York City. 39

Answer.

City, County and State of New York, } ss.:
Southern District of New York. }

GEORGE T. WILLIAMS, being duly sworn, deposes and says: That he is President of the Convoy Steamship Company, the claimant herein; that he has read the foregoing answer and knows the contents thereof, and that the same is true to the best of his knowledge, information and belief.

That the reason this verification is made by deponent and not by the claimant is because claimant is a corporation and deponent is an officer thereof, to-wit: its President.

(Sgd.) GEO. T. WILLIAMS.

Sworn to before me this
12th day of November, 1920.

(Sgd) H. ROBERT BURNEY,
Notary Public,
Queens Co. 745.
New York Co. Clk's Cert. No. 408,
New York Co. Reg. Cert. No. 2329.

(Seal)

INTERROGATORIES ADDRESSED TO LIBELLANT, WHICH IT IS REQUIRED TO ANSWER UNDER OATH: 43

FIRST INTERROGATORY: In what respects did the *S. S. Willdomino* and/or the carrier fail to fulfill its obligations to the merchandise of the libellant for the alleged damage to which the libel herein was filed.

SECOND INTERROGATORY: Attach a true copy of the invoice of the merchandise for the alleged damage to which the libel herein was filed.

THIRD INTERROGATORY: Give complete specifications of the casks in which the merchandise was 44
packed for the alleged damage to which the libel herein was filed.

FOURTH INTERROGATORY: State what insurance was in effect on the merchandise for the alleged damage to which the libel herein was filed and by what companies said insurance was carried.

HUNT, HILL & BETTS,
Proctors for the Claimant.

45

Answer to Interrogatories.

46

UNITED STATES DISTRICT COURT,

DISTRICT OF NEW JERSEY.

CITRO CHEMICAL COMPANY OF AMERICA,
Libellant,

—against—

STEAMSHIP "WILLDOMINO", her engines, boilers, etc.,
Respondent.

47

The libellant above named answers the interrogatories addressed to it and attached to the answer of the claimant herein as follows:

FIRST INTERROGATORY: Libellant claims that the steamship *Willdomino* and those operating or in charge of her failed in their obligation to the libellant's merchandise, in that they failed to properly carry and deliver said merchandise in as good condition as when received, but tendered delivery of it at destination worthless and not
48 in specie, due to the failure of the vessel, her master, mariners, owners and agents to properly stow same, and also in failing to protect, preserve and save said cargo and minimize the damage to same during the voyage.

SECOND INTERROGATORY: Attached hereto is a copy of the invoice for the 168 casks of citrate of lime mentioned in the libel herein.

THIRD INTERROGATORY: The 168 cases of citrate of lime weighed in the aggregate 114,220 kilos and were marked as follows: "C. A. 3899/60-66, Ferd Baller and Company, Messina." The casks were the usual and ordinary casks used in the shipment of such a commodity and of a kind and quality well known to respondent as a carrier of such commodities. 49

FOURTH INTERROGATORY: Libellant states that the information requested in the Fourth Interrogatory is immaterial and in no way in issue in this action; that there is no provision in the bills of lading covering insurance of the shipments involved in this action or for benefit of insurance or with reference to insurance upon said merchandise, and that the respondent is not entitled to said information and therefore libellant declines to give the same. 50

Dated, New York, January 31st, 1923.

BIGHAM, ENGLAR & JONES,
Proctors for Libellant,
Office and P. O. Address,
No. 64 Wall Street,
Borough of Manhattan,
City of New York. 51

52 State of New Jersey, } ss.:
County of Bergen, }

WALTER W. WHITE, being duly sworn, deposes and says:—

That he is the Secretary and General Manager of Citro Chemical Company of America, the libellant herein; that he has read the foregoing Answers to Interrogatories and knows the contents therof, and that the same are true to the best of his knowledge, information and belief.

That the reason this information is made by
53 deponent and not by libellant is that the libellant is a corporation.

WALTER W. WHITE.

Sworn to before me this
31st day of January, 1923.

C. J. PENGILLY,
Notary Public.
(Seal)

54

Consent and Order of Substitution.

55

At a Stated Term of the United States District Court, held in and for the District of New Jersey, at the Post Office Building, Newark, New Jersey, on the 28th day of February, 1923.

Present:—Hon. Charles T. Lynch, *D. C. J.*

Citro Chemical Company of America,
Libellant,

—against— 56

Steamship "Willdomino", her engines, boilers, etc.,
Respondent.

On the written consent and on motion of Bigham, Englar and Jones, it is hereby

Ordered that Bigham, Englar & Jones be substituted for Harrington, Bigham & Englar, as proctors for the respondent herein.

57

CHARLES T. LYNCH,
D. C. J.

We hereby consent to the entry of the foregoing order.

Dated, New York, February 28, 1923.

HUNT, HILL & BETTS,
Proctors for Respondent.

HARRINGTON, BIGHAM & ENGLAR,
Proctors for Libellant.

Claim of Ownership.

58

UNITED STATES DISTRICT COURT,

DISTRICT OF NEW JERSEY.

CITRO CHEMICAL CO. OF AMERICA,
Libellant,

—against—

S. S. WILLDOMINO, her engines, etc.,
Respondent.

59 Now comes Convoy Steamship Company, Limited, as owner for its interest in said Steamship *Willdomino,* appears before this Honorable Court and makes claim to the said steamship as the same is libelled in this Court at the instance of Citro Chemical Company of America, and the said claimant avers that it was in possession of the said steamship at the time of the filing of the libel, and that it is and was the true and bona fide owner of the said steamship, and that no other person is the owner thereof.

WHEREFORE, it prays to defend accordingly.

60

HUNT, HILL & BETTS,
Proctors for Claimant,
Office & P. O. Address,
120 Broadway,
Borough of Manhattan,
New York City.

CONVOY STEAMSHIP COMPANY, LIMITED,
Claimant,

By GEORGE T. WILLIAMS,
President.

Claim of Ownership.

State of New York,
County of New York, } *ss.*: 61

GEORGE T. WILLIAMS, being duly sworn, deposes and says that he is the President of Convoy Steamship Company, Limited, above named, owner of the Steamship *Willdomino*, the corporation described in and which executed the above claim; that he has read the same and knows the contents thereof and the statements therein contained are true of his own knowledge.

That the reason why this verification is made by deponent and not by Convoy Steamship Company, Limited, is because the Convoy Steamship 62
Company, Limited, is a corporation and that the deponent is the President thereof.

Sworn to before me this
16th day of October, 1920.

A. ROBERT BURNET,
Notary Public,
Queens Co. 745,
New York County Clerk's Cert. No. 408,
New York Co. Reg. Cert. No. 2329.
(Seal)

63

Statement—Charles Pfizer & Co., Inc.

61

UNITED STATES DISTRICT COURT,

DISTRICT OF NEW JERSEY.

In Admiralty No. 5202.

CHARLES PFIZER & CO., INC.,
Libellant,

—against—

The Steamship "WILLDOMINO."

65

Oct. 1, 1920. Libel for Contract $179,000.
Oct. 1, 1920. Stipulation for Libellant's Costs.
Oct. 1, 1920. Monition issued, returnable Oct. 26, 1920.

Oct. 8, 1920. Monition returned served.
Oct. 20, 1920. Order denying Motion, etc., and fixing of amount of Bond, etc.
Oct. 22, 1920. Claim.
Oct. 22, 1920. Stipulation for Claimant's Costs.
Oct. 22, 1920. Stipulation for Value.
66 Nov. 15, 1920. Answer Convoy Steamship Co.
Nov. 15, 1920. Cross Libel.
Jan. 17, 1922. Calendar.
Feb. 2, 1923. Answer to Cross Libel.
Feb. 2, 1923. Answer to Interrogatories.
Feb. 1, 1923. Trial.
Feb. 1, 1923. Swearing Witnesses—9 for Claimant and Cross Libellant.
Feb. 2, 1923. Trial continued.
Feb. 2, 1923. Swearing Witneses—8 for Claimant and Cross Libellant.

Feb. 26, 1923. Trial continued. 67

Feb. 26, 1923. Swearing 10 Witnesses for Libellant.

Feb. 27, 1923. Depositions of Claimant (3).

Feb. 27, 1923. Trial Continued.

Feb. 27, 1923. Swearing 2 Witneses for Claimant.

Feb. 27, 1923. Swearing 1 Witness for Claimant and Cross Libellant.

Feb. 28, 1923. Trial continued.

Feb. 28, 1923. The Court took the papers.

Feb. 28, 1923. Consent and Order of Substitution of Proctors.

Feb. 28, 1923. Consent and Order of Substitution of Proctors. C. S. S. Co. v. C. P. & Co., Inc. 68

Apr. 25, 1923. Memorandum (Judge Lynch).

Apr. 27, 1923. Testimony.

May 10, 1923. Bill of Costs of C. P. & Co. v. Willdomino.

May 10, 1923. Bill of Costs of C. S. Co. v. C. P. & Co.

May 15, 1923. Final Decree Dismissing libel of C. P. & Co. v. Willdomino.

May 15, 1923. Final Decree for Cross Libellant.

May 15, 1923. Enrolling (C. P. & Co. v. Willdomino). 69

May 15, 1923. Costs taxed (C. P. & Co. v. Willdomino) $1,986.18.

May 15, 1923. Docket Fee (C. P. & Co. v. Willdomino.

May 15, 1923. Enrolling (Cross Libel C. S. Co. v. C. P. & Co., Inc.).

May 15, 1923. Costs taxed (Cross Libel C. S. Co. v. C. P. & Co., Inc.).

70 May 15, 1923. Docket Fee (Cross Libel C. S. Co. v. C. P. & Co., Inc.).

May 22, 1923 Notice of Appeal, Pfizer v. Willdomino.

May 22, 1923. Notice of Appeal Cross Libel.

June 6, 1923. Petition of Appeal and Allocatur P. v. W.

June 6, 1923. Bond on Appeal.

June 6, 1923. Stipulation for Costs.

June 6, 1923. Citation issued, returnable July 6, 1923.

June 6, 1923. Citation returned service ac-
71 knowledged (P. v. W.).

June 6, 1923. Petition of Appeal and Allocatur C. S. Co. v. C. P. & Co.

June 6, 1923. Bond on Appeal C. S. Co. v. C. P. & Co.

June 6, 1923. Stipulation for Costs. C. S. Co. v. C. P. & Co.

June 6, 1923. Citation issued returnable July 6, 1923. C. S. Co. v. C. P. & Co.

June 6, 1923. Citation returned service acknowledged.

72

Libel and Complaint of Charles Pfizer & Company, Inc.

73

TO THE HONORABLE THE JUDGES OF THE DISTRICT COURT OF THE UNITED STATES FOR THE DISTRICT OF NEW JERSEY:

The libel and complaint of CHARLES PFIZER & COMPANY, INC., against The Steamship "WILLDOMINO," her engines, boilers, etc., in a cause of contract and cargo damage, civil and maritime, alleges and respectfully shows to this Honorable Court as follows:

FIRST: At all the times hereinafter mentioned your libellant was and it still is a corporation duly created, organized and existing under and by virtue of the laws of the State of New Jersey. 74

SECOND: At all the times hereinafter mentioned the said steamship *Willdomino* was a general ship engaged in the common carriage of merchandise for hire between various ports including the port of Messina, Italy, and the Port of New York.

THIRD: The said steamship *Willdomino* is now within this District and within the jurisdiction of this Honorable Court. 75

FOURTH: On or about the tenth day of June, 1920, Ferd. Baller & Co. shipped and placed on board the said steamship *Willdomino,* then lying at the port of Messina, three hundred and thirty-five (335) casks of Citrate of Lime in good order and condition, to be carried by the said steamship *Willdomino* to the port of New York and

76 there to be delivered in like good order and condition as when shipped unto Messrs. Charles Pfizer & Company, Inc., or their assigns, in consideration of an agreed freight and in accordance with the valid terms of a certain bill of lading then and there signed and delivered to the shipper by the duly authorized agent of the said steamship *Willdomino.*

FIFTH: Thereafter the said steamship *Willdomino* having on board the said merchandise, proceeded from the port of Messina and subsequently, to wit, on or about the seventh day of
77 August, 1920, arrived at the port of New York, where after considerable delay the said steamship *Willdomino* tendered delivery of said merchandise, but not in like good order as when shipped, but short, slack and seriously injured and damaged.

SIXTH: Prior to the arrival of said steamship *Willdomino* at the port of New York, as aforesaid, and prior to the commencement of this action, your libellant, for value, became the owner and holder of the aforesaid bill of lading and of all rights thereunder and entitled to delivery of
78 the merchandise hereinbefore mentioned according to the terms and conditions of said bill of lading.

SEVENTH: By reason of the premises your libellant has sustained damage in the sum of One Hundred Seventy Nine Thousand ($179,000) Dollars, as nearly as the same can now be estimated, no part of which has been paid, although duly demanded.

Libel and Complaint.

EIGHTH: All and singular the premises are true and within the Admiralty and Maritime jurisdiction of the United States and of this Honorable Court. 79

WHEREFORE, libellant prays that process in due form of law, according to the course and practice of this Honorable Court in causes of Admiralty and Maritime jurisdiction, issue against the said steamship *Willdomino*, her engines boilers, etc., and that all persons having or claiming any interest therein be cited to appear and answer all and singular the matters aforesaid; that this Honorable Court be pleased to decree to your libellant its damages, with interest and costs, and that the steamship *Willdomino*, her engines, etc., be condemned and sold to satisfy the same, and that your libellant may have such other and further relief as in law and justice it may be entitled to receive. 80

HARRINGTON, BIGHAM & ENGLAR,
Proctors for Libellant,
Office & P. O. Address,
No. 64 Wall Street,
Borough of Manhattan,
New York City. 81

State of New York,
County of New York, } *ss.*:

GEORGE A. ANDERSON, being duly sworn, deposes and says:

That he is Treasurer of Charles Pfizer & Company, Inc., the libellant herein; that he has read the foregoing libel and knows the contents

82 thereof, and that the same is true to the best of his knowledge, information and belief.

That the reason this verification is made by deponent and not by libellant is that libellant is a corporation.

GEORGE A. ANDERSON.

Sworn to before me this
1st day of October, 1920.

HERMAN SANDERS, JR.,
Notary Public.
(Seal)

83

Answer to Libel and Complaint of Charles Pfizer & Company, Inc.

TO THE HONORABLE THE JUDGES OF THE DISTRICT COURT OF THE UNITED STATES FOR THE DISTRICT OF NEW JERSEY:

The answer of CONVOY STEAMSHIP COMPANY, LTD., claimant and owner of the S. S. WILLDOMINO, to the libel and complaint of CHARLES PFIZER & COMPANY, INC., against the S. S. WILLDOMINO, her
84 engines, boilers, etc., in a cause of contract and cargo damage, civil and maritime, alleges and respectfully shows to this Honorable Court, as follows:

FIRST: It denies that it has any knowledge or information sufficient to constitute a belief as to the allegations contained in the FIRST article of the libel.

SECOND: It admits the allegations contained in the SECOND article of the libel.

THIRD: It admits the allegations contained in the THIRD article of the libel. 85

FOURTH: It admits the allegations contained in the FOURTH article of the libel except it denies that the 335 casks of citrate of lime referred to therein were in good order and condition when delivered to the said *S. S. Willdomino.*

FIFTH: It denies the allegations contained in the FIFTH article of the libel except it admits that the said *S. S. Willdomino* having on board the said merchandise, proceeded from the Port of Messina, and subsequently, to wit: on or about the 7th day of August, 1920, arrived at the Port of New York, where it tendered delivery of said merchandise to the libellant. 86

SIXTH: It denies that it has any knowledge or information sufficient to constitute a belief regarding the allegations contained in the SIXTH article of the libel.

SEVENTH: It denies the allegations contained in the SEVENTH article of the libel, except it admits that it has not paid the sum of $179,000 or any part thereof to the libellant.

EIGHTH: It denies the truth of the premises, but admits the jurisdiction of the United States and of this Honorable Court. 87

FOR A FIRST, SEPARATE AND DISTINCT DEFENSE TO THE LIBEL HEREIN, THE CLAIMANT ALLEGES AS FOLLOWS:

NINTH: The goods for the alleged damage of which the within libel was brought were accepted for carriage by the *S. S. Willdomino* pur-

88 suant to the valid terms of a certain bill of lading which constituted the contract of carriage between the shippers of said goods and the vessel, and the terms, stipulations, exceptions and conditions of which are binding upon the libellant. The claimant and the *S. S. Willdomino* have performed all and singular the duties ond obligations laid upon them under said bill of lading. The said bill of lading contained the following, among other terms, stipulations, exceptions and conditions:

"to be transported by the good steamship
89 WILLDOMINO Captain to New York with liberty to call at intermediate ports or any port or ports in or out of the customary route in any order to receive and discharge coal, cargo, passengers, and for any other purposes, * * *

"IT IS MUTUALLY AGREED AS FOLLOWS, FIRST. The ship and carrier shall not be liable for loss or damage occasioned by the perils of the seas or other waters, by fire from any cause or wheresoever occurring, by barratry of the Master or crew, by en-
90 emies, pirates, robbers or thieves, by arrest and restraint of princes, rulers or people, by explosion, bursting of boilers, of breakage of shafts, or any latent defect in hull, machinery or appurtenances, or unseaworthiness of the ship even existing at time of shipment or sailing on the voyage, provided the owners have exercised due diligence to make the vessel seaworthy, by collision, stranding or other accidents of navigation of whatsoever kind

even when occasioned by the negligence, default or error in judgment of the pilot, master, mariners or other servants of the shipowner, nor for any loss or damage caused by heat, decay, putrefaction, vermin, rust, sweat, change of character, shrinkage, leakage, breakage nor for any loss or damage arising from the nature of the goods or the insufficiency of the packages; nor for any country damages; nor for the obliteration, errors, insufficiency or absence of marks or numbers, address or description; nor for risk of craft, hulk and transshipment; nor for any loss nor damage caused by the prolongation of the voyage; nor for any loss nor damage occasioned by causes beyond his control. Fault of master and crew in navigation or management of the ship will not liberate the consignees from contributing their proportion in general average. 91 92

"EIGHTH: The ship has liberty of filling up and/or bunkering at any port or ports in or out of the way.

"AND FINALLY: In accepting this bill of lading, the ship, owner and consignee of goods agree to be bound by all its stipulations, exceptions and conditions, whether written or printed, as fully as if they were all signed by such shipper, owner or consignee." 93

TENTH: The claimant exercised due diligence to make the steamship *Willdomino* in all respects seaworthy and properly manned, equipped and

94 supplied for the voyage called for by the said bill of lading, and the said steamship *Willdomino* was, in fact, in all respects seaworthy, properly manned, equipped and supplied at the beginning of said voyage and the cargo was in every respect properly loaded, stowed, cared for and tendered for delivery.

ELEVENTH: If there was any loss of or damage to any of the merchandise referred to in the libel herein, which is not admitted, it was due to one or more of the following causes mentioned in the exemptions in the clauses of the
95 bill of lading enumerated in the NINTH article of this answer for the consequences of which the ship and carrier were each specifically exempted by the terms of said bill of lading:

(a) Perils of the seas or other waters;

(b) Breakage of shafts, or any latent defect in hull, machinery or appurtenances, or unseaworthiness of the ship, even existing at the time of shipment or sailing on the voyage, provided the owners have exercised due diligence to make the vessel seaworthy.

96

(c) Collision, stranding or other accidents of navigation of whatsoever kind, even when occasioned by the negligence, default or error in judgment of the pilot, master, mariners or other servants of the shipowner.

(d) Loss or damage caused by heat, decay, putrefaction, vermin, rust, sweat, change of character, shrinkage, leakage, breakage.

(e) Damage arising from the nature of 97
the goods or the insufficiency of the packages.

(f) Loss or damage caused by the prolongation of the voyage.

(g) Loss or damage occasioned by causes beyond the carrier's control.

FOR A SECOND, SEPARATE AND DISTINCT DEFENSE TO THE LIBEL HEREIN, CLAIMANT ALLEGES AS FOLLOWS:

TWELFTH: The Act of the Congress of the 98
United States, approved February 13, 1893, entitled "Limitation of Liability for Errors of Navigation, Dangers of the Sea, Acts of God, etc." and commonly known as the "Harter Act," provides that

"If the owner of any vessel transporting merchandise or property to or from any port in the United States of America, shall exercise due diligence to make the said vessel in all respects seaworthy and properly manned, equipped and supplied, neither the vessel, her owner or owners, 99
agent or charterers, shall become or be held responsible for damage or loss resulting from faults or errors in navigation or in the management of said vessel, nor shall the vessel, her owner or owners, charterers, agent or master be held liable for losses arising from the dangers of the sea or other navigable waters, acts of God, or public enemies or the inherent defect,

100 quality or vice of the thing carried, or from insufficiency of package, or seizure under legal process, or for loss resulting from any act or omission of the shipper or owner of the goods, its agent or representative, or from saving or attempting to save life or property at sea, or from any deviation in rendering such service."

THIRTEENTH: At all the times mentioned in the libel herein the steamship *Willdomino* was engaged in the transportation of the merchandise for the alleged damage to which this libel
101 was brought from the Port of Messina, Sicily, to New York, a port in the United States of America, and the claimant had exercised due diligence to make said vessel in all respects seaworthy and properly manned, equipped and supplied, pursuant to and in accordance with the terms and provisions of the said Harter Act.

FOURTEENTH: Any damage to, or loss of, the libellant's goods, which is not admitted, was due to causes within the exceptions provided by the said Harter Act and was due either to faults or errors in navigation, or in the management of the
102 said vessel, dangers of the sea or other navigable waters, or the inherent defect, quality or vice of the thing carried, or from insufficiency of package, or to an act or omission of the shipper or owner of the goods, his agent or representative, and for such losses or damages the steamship *Willdomino* and the claimant are exempted from liability to the libellant by virtue of the provisions of the said Harter Act.

Answer.

FOR A THIRD, SEPARATE, DISTINCT AND PARTIAL DEFENSE TO THE LIBEL HEREIN, THE CLAIMANT RESPECTFULLY ALLEGES AS FOLLOWS: 103

FIFTEENTH: The bill of lading under which the goods in question were accepted on board the *S. S. Willdomino*, for transportation to New York, as alleged in the first, separate and distinct defense and which constituted the contract of carriage between the shippers of said goods and the vessel and carrier and the terms, stipulations, exceptions and conditions of which are binding upon the libellant, contained the following, among other terms, stipulations, exceptions 104 and conditions:

> "THIRD: The value of package receipted for as above does not exceed the sum of $100, unless otherwise stated herein, on which basis the rate of freight is adjusted."

The number of packages received on board said vessel under said bill of lading was 335 casks, and the freight agreed to be paid for their transportation from Messina to New York was adjusted upon the basis of the agreed valuation of $100 per cask, and had the value of said casks 105 been unrestricted, an additional freight would have been charged. If the claimant or the *S. S. Willdomino* is under any liability to the libellant herein, which is denied, then said liability is restricted to the aforesaid agreed valuation of the merchandise moved under said bill of lading and is limited to the sum of $100.00 per package, or, in the case of the present shipment, to a total liability of $33,500.00.

106 FOR A FOURTH SEPARATE AND DISTINCT DEFENSE TO THE LIBEL HEREIN, CLAIMANT RESPECTFULLY ALLEGES AS FOLLOWS:

SIXTEENTH: The bill of lading under which the merchandise in question was accepted on board the *S. S. Willdomino* for transportation to New York, as alleged in the first separate and distinct defense, and which constituted the contract of carriage between the shipper of said merchandise and the vessel and carrier, and the terms, stipulations, exceptions and conditions of which are binding upon the libellant, contained
107 the following, among other terms, stipulations, exceptions and conditions:

> "Freight on the goods and charges as per margin New York ship lost or not lost. General average payable according to York-Antwerp Rules 1890."

On the margin of the said bill of lading appears the following notation:

> "Freight £684.2.1"

subsequent to the arrival of the vessel at New York, delivery of the merchandise in question
108 was tendered to the libellant by the claimant and a demand made for the payment of the freight thereon by the claimant. Libellant refused to accept the cargo or to pay the freight thereon, and has at all times thereafter refused to pay said freight, which amounted to £684.2.1, which, at the rate of exchange then in effect, equalled $2,514.08. Libellant has therefore failed to fulfill its obligations under said bill of lading for the transportation of said merchandise, and by

reason of said failure is precluded from bringing the present action. 109

WHEREFORE, the claimant prays that the libel herein be dismissed with costs, and that the claimant may have such other and further relief as the justice of the cause may require.

HUNT, HILL & BETTS,
Proctors for Claimant,
Office and Post Office Address,
120 Broadway,
Borough of Manhattan,
New York City. 110

City, County and State of New York, } ss.:
Southern District of New York, }

GEORGE T. WILLIAMS, being duly sworn, deposes and says: That he is President of Convoy Steamship Company, the claimant herein; that he has read the foregoing answer and knows the contents thereof, and that the same is true to the best of his knowledge, information and belief.

That the reason this verification is made by deponent and not by the claimant is because claimant is a corporation and deponent is an officer thereof, to-wit: its President. 111

GEORGE T. WILLIAMS.

Sworn to before me, this
12th day of November, 1920.

H. ROBERT BURNEY,
Notary Public,
Queens Co. 745,
N. Y. Co. Clerk's Cert. No. 408.
N. Y. Co. Register's Cert. No. 2329.

INTERROGATORIES ADDRESSED TO LIBELLANT,
112 WHICH IT IS REQUIRED TO ANSWER UNDER OATH:

FIRST INTERROGATORY: In what respects did the *S. S. Willdomino* and/or the carrier fail to fulfill its obligations to the merchandise of the libellant for the alleged damage to which the libel herein was filed?

SECOND INTERROGATORY: Attach a true copy of the invoice of the merchandise for the alleged damage to which the libel herein was filed.

THIRD INTERROGATORY: Give complete specifi-
113 cations of the casks in which the merchandise was packed for the alleged damage to which the libel herein was filed.

FOURTH INTERROGATORY: State what insurance was in effect on the merchandise for the alleged damage to which the libel herein was filed and by what companies said insurance was carried?

FIFTH INTERROGATORY: Is it not a fact that you did not pay the freight on the merchandise, for the alleged damage to which the libel herein was filed?

114

HUNT, HILL & BETTS,
Proctors for the Claimant.

Answer to Interrogatories.

115

UNITED STATES DISTRICT COURT,

DISTRICT OF NEW JERSEY.

CHARLES PFIZER & COMPANY, INC.,
Libellant,

—against—

STEAMSHIP "WILLDOMINO," her engines, boilers, etc.,
Respondent.

116

The libellant above named answers the interrogatories addressed to it and attached to the answer of the claimant herein as follows:

FIRST INTERROGATORY: Libellant claims that the steamship *Willdomino* and those operating or in charge of her failed in their obligation to the libellant's merchandise, in that they failed to properly carry and deliver said merchandise in as good condition as when received, but tendered delivery of it at destination worthless and not in specie due to the failure of the vessel, her 117
master, mariners, owners and agents to properly stow same, and also in failing to protect, preserve and save said cargo and minimize the damage to same during the voyage.

SECOND INTERROGATORY: Attached hereto is a copy of the invoice for the 335 casks of citrate of lime mentioned in the libel herein.

118 THIRD INTERROGATORY: The 335 cases of citrate of lime weighed in the aggregate 228,035 kilos and were marked as follows: "CA/P 4967/5301, Ferd. Baller & Company, Messina." The casks were the usual and ordinary casks used in the shipment of such a commodity and of a kind and quality well known to respondent as a carrier of such commodities.

FOURTH INTERROGATORY: Libellant states that the information requested in the Fourth Interrogatory is immaterial and in no way in issue in this action; that there is no provision in the
119 bills of lading covering insurance of the shipments involved in this action or for benefit of insurance, or with reference to insurance upon said merchandise and that the respondent is not entitled to said information, and therefore libellant declines to give the same.

FIFTH INTERROGATORY: Answering the Fifth Interrogatory, this libellant states that whether or not it is a fact that the libellant either did not pay the freight on the merchandise, for the alleged damage to which the libel herein was filed, is as much within the knowledge of the respond-
120 ent as of the libellant, and it refers the respondent to its records for the information therein requested.

Dated, New York, January 31st, 1923.

BIGHAM, ENGLAR & JONES,
Proctors for the Libellant,
Office and P. O. Address,
No. 64 Wall Street,
Borough of Manhattan,
City of New York.

Answer to Interrogatories.

Messrs. Citro Chemical Company of America, Maywood, N. J.

168 casks citrate of lime bought by from the Camera Agrumaria and S/S "Willdomino"—Messina.

Messrs. Goldman, Sachs & Co.

C. A. 168 Casks citrate of lime, Gross kos. 114220.
5899/6066 Tare 13127
Ferd Baller Nett. kos. 101093

& Co. at £850, — % kos. basis 64% C. A.	Lit.	859290.50
Messina interest at 7.50% for 13 days (from June 3 to June 16)	Lit.	2327.15
Shipping charges at £4.20 per 305 kos. net	"	1392.10
Statistical duty at 0.20 per 100 kos. gross	"	228.45
Italian Bill Stamps	"	435.95
	Lit.	863674.15
at 17.25 sight	$	50068.05
Our Commission 1%	"	500.70
Consular fee	"	2.50
	$	50571.25

Subject to settlement of acidity on receipt of certificate of analysis from the Camera Agrumaria.

Certified Correct.

Answer to Interrogatories.

Messrs. The Citro Chemical Company of America, Maywood, N. J.

C. A. C.		Debit	Credit
5899/5941	S. S. "Willdomino" of June 10, 1920		
	43 Casks citrate of lime		
	invoiced at 64, — % C. A.		
	test 64, 85 "		
	Excess 0, 85 % C. A.		
	on it £215679	£2864.50	
	Excess of free lime 1, 90% at 33 cent		
	for every 1% over 2% on kos. 25471		
"	41 casks citrate of lime		
5942/5982	invoiced at 64, — % C. A.		
	test 64, 90 "		
	Excess 0, 90		
	on it £213061	£2996.20	
	Excess of free lime I. 85% at 33 cent		
	on every 1% over 2% on kos. 25066		
"	42 Casks citrate of lime		
5983/6024	invoiced at 64, — % C. A.		
	test 65, 10 "		
	Excess 1, 10 % C. A.		
	on it £213086.50	£3662.50	
	Excess of free lime 2.25% at 33 cent		
	for every 1% over 2% on kos. 25069		£20.60
"	42 casks citrate of lime		
	invoiced at 64, — % C. A.		
	test 64, 50 "		
	Excess 0, 80		
	on it £217464	£2718.30	
	Excess of free lime 2.25% at 33 cent		
	for every 1% over 2% on kos. 25584		£21.10
		£12241.50	£41.70
		41.70	

Fred Baller & Co. 127
Catania

Catania 10th of June 1920

MESSRS. CHAS. PFIZER & CO., INC.
New York.

Invoice of 335 Casks citrate of lime bought by you from the Camera Agramaria and shipped by your order and for your account of risk per British *S. S. Willdomino* Catn from Messina to New York

Unto Your order.

C. A. 335 casks citrate of lime 128

P.	Gross kos.	228935
4967/	Tare "	26324
/5301	Nett kos.	310711

Fred Baller & Co. at L.850 per 100 kos. basis 64% C. A.....	Lit.	1714543.50
Messina interests as per attached statement	"	215.—
Shipping charges at 4.20 per kos. 305 Nett	"	2777.65
Statistical duty at 0.20 per % kos. Gross	"	456.05 129
	Lit.	1717992.20
car commission 1%	"	17179.90
	"	1735172.10
consular fee	"	62.50
	Lit.	1735234.60

FRED BALLER & CO.

Answer to Interrogatories.

130 Entered
10 GIU 1920 fol. 173 Certified correct.
CHE Fred Baller & Co.

CATANIA

Subject to settlement of acidity on receipt of certificate of analysis from the Camera Agramaria.

State of New York, } ss.:
County of New York, }

131 GEORGE A. ANDERSON, being duly sworn, deposes and says:

That he is the Treasurer of Charles Pfizer & Company, Inc., the libellant herein; that he has read the foregoing answers to interrogatories, and knows the contents thereof, and that the same are true to the best of his knowledge, information and belief.

That the reason this verification is made by deponent and not by libellant is that the libellant is a corporation.

132 GEORGE A. ANDERSON.

Sworn to before me this
2nd day of February, 1923.

HERMAN SANDERS, JR.,
Notary Public.
Certificate filed in N. Y. County No. 22.

(Seal)

Consent and Order of Substitution.

133

At a Stated Term of the United States District Court, held in and for the District of New Jersey, at the Post Office Building, Newark, New Jersey, on the 28th day of February, 1923.

Present:—Hon. Charles T. Lynch, *D. C. J.*

Charles Pfizer and Company, Inc.,
Libellant,

—against— 134

Steamship "Willdomino", her engines, boilers, etc.

On the written consent and on motion of Bigham, Englar and Jones, it is hereby

Ordered that Bigham, Englar & Jones be substituted for Harrington, Bigham & Englar, as proctors for the respondent herein.

135

CHARLES T. LYNCH,
D. C. J.

We hereby consent to the entry of the foregoing order.

Dated, New York, February 28, 1923.

HUNT, HILL & BETTS,
Proctors for Respondent.

HARRINGTON, BIGHAM & ENGLAR,
Proctors for Libellant.

Cross-Libel.

136

10,319—1.

TO THE HONORABLE THE JUDGES OF THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF NEW JERSEY:

The cross-libel of CONVOY STEAMSHIP COMPANY, LTD., owner of the S. S. WILLDOMINO, against CHARLES PFIZER & COMPANY, INC., in a cause of contract, civil and maritime, alleges and respectfully shows to this Honorable Court as follows:

137

FIRST: The cross-libellant is a corporation organized under the laws of Nova Scotia, and now is and was at all the times hereinafter mentioned the owner of the *S. S. Willdomino,* which was attached under a libel in this Court filed October 1st, 1920, wherein the cross-respondent herein was libellant.

SECOND: At all the times hereinafter mentioned the cross-respondent was and still is a corporation created, organized and existing under and by virtue of the laws of the State of New
138 Jersey.

THIRD: That on or about the 10th day of June, 1920, the *S. S. Willdomino,* then lying at the port at Messina, Italy, received and took on board 335 casks of citrate of lime for transportation by the said *S. S. Willdomino* to the port of New York, for an agreed freight and there to be delivered to Messrs. Charles Pfizer & Company, under which said merchandise was received on Inc., the cross-respondent. The bill of lading

board for transportation provided that the freight charge was £684.2.1. and stated that the same was payable in New York, ship lost or not lost. The terms of said bill of lading were valid and constituted the contract of carriage between the ship and the shipper of the merchandise and the cross-respondent was bound thereby. 139

FOURTH: The *S. S. Willdomino* arrived in New York on or about August 7, 1920, and subsequent to her arrival tendered delivery of the merchandise specified in the THIRD article of this cross-libel to the cross-respondent and demanded payment of the agreed freight thereon. Cross-respondent thereupon refused to accept the cargo or to pay the freight thereon, and has at all times thereafter refused to pay said freight, which in American money, at the rate of exchange prevailing at the time of tender of delivery, amounted to $2,514.08. 140

FIFTH: By reason of the premises, there is due and owing the cross-libellant from the cross-respondent the sum of $2,514.08, no part of which has been paid, although duly demanded.

SIXTH: That all and singular the premises are true and within the admiralty and maritime jurisdiction of the United States and of this Honorable Court. 141

WHEREFORE, cross-libellant prays that process in due form of law in causes of admiralty and maritime jurisdiction may issue against the said Charles Pfizer & Company, Inc., cross-respondent, and that it may be required to answer on oath

142 all and singular the matters aforesaid, and that this Honorable Court will be pleased to decree payment of the amount due as aforesaid, with interest and costs, and that this Honorable Court will also be pleased to stay all proceedings in the action wherein the cross-respondent herein is libellant and the *S. S. Willdomino* is respondent, in which the cross-libellant herein has appeared and claimed said vessel, until such time as the cross-respondent herein has given security for the claim of the cross-libellant herein, in conformity with the admiralty rules of the Supreme Court, and that the cross-libellant may have such other
143 and further relief as in law and justice it may be entitled to receive.

HUNT, HILL & BETTS,
Proctors for Cross-Libellant,
Office and Post Office Address,
120 Broadway,
Borough of Manhattan,
New York City, N. Y.

City, County and State of New York, } *ss.:*
144 Southern District of New York, }

GEORGE T. WILLIAMS, being duly sworn, deposes and says: That he is President of Convoy Steamship Company, the cross-libellant herein; that he has read the foregoing cross-libel and knows the contents thereof, and that the same is true to the best of his knowledge, information and belief.

That the reason this verification is made by 145
deponent and not by the cross-libellant is because the cross-libellant is a corporation and deponent is an officer thereof, to wit, its President.

GEO. T. WILLIAMS.

Sworn to before me this
9th day of November, 1920.

H. ROBERT BURNET,
Notary Public,
Queens Co. 745.
New York Co. Clerk's Cert. No. 408. 146
New York Co. Register's Cert. No. 2329.
(Seal)

Answer to Cross-Libel.

10,319—1.

TO THE HONORABLE THE JUDGES OF THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF NEW JERSEY:

The Answer of CHARLES PFIZER & COMPANY, INC., INC., to the Cross-Libel of the CONVOY STEAMSHIP COMPANY, LTD., Owner of the steamship *Willdomino,* against the said Charles Pfizer & Company, Inc., in a cause of contract, civil and maritime, alleges, on information and belief, and respectfully shows to this Honorable Court, as follows: 147

FIRST: As to the allegations contained in the First article of said cross-libel, this cross-re-

148 spondent denies that it has any knowledge or information thereof sufficient to form a belief.

SECOND: It admits the allegations in the Second article of said cross-libel.

THIRD: It denies each and every allegation in the Third and Fourth articles of said cross-libel, except in so far as the same are hereinafter admitted or modified in the Sixth and Seventh articles of this answer.

FOURTH: It denies each and every allegation
149 in the Fifth article of said cross-libel, except that it admits that the sum of $2,514.08 was demanded by the cross-libellant from this cross-respondent, and that no part of said sum has been paid.

FIFTH: It admits the admiralty and maritime jurisdiction of the United States and of this Honorable Court, and denies each and every other allegation in the Sixth article of said cross-libel.

150 FURTHER ANSWERING THE SAID CROSS-LIBEL, THIS CROSS-RESPONDENT ALLEGES AS FOLLOWS:

SIXTH: That on or about the tenth day of June, 1920, Ferd. Baller & Co. shipped and placed on board the steamship *Willdomino,* then lying at the port of Messina, Italy, 335 casks of citrate of lime, in good order and condition, to be carried by the said steamship *Willdomino* to the port of New York, and there to be delivered in like order and condition as when shipped,

to Charles Pfizer & Company, Inc., or its as- 151
signs, in consideration of an agreed freight, and in accordance with the valid terms of a certain bill of lading then and there signed and delivered to the shipper by the duly authorized agent of the said steamship *Willdomino,* and for the contents, terms and conditions of said bill of lading, this cross-respondent refers to the said bill of lading and makes it a part hereof as fully as though same were here set forth at length.

SEVENTH: That thereafter the said steamship *Willdomino,* having on board said 335 casks of citrate of lime, proceeded from the said port of 152
Messina, and subsequently, or on or about the seventh day of August, 1920, arrived at the port of New York, and there tendered delivery of a certain substance as and for said merchandise, but not in like good condition and order as when shipped, but short, slack, and so changed in character and seriously injured and damaged, not in specie and of no value to this cross-respondent; that by reason thereof cross-respondent refused to accept the said substance as said merchandise, or to make any payment thereon for or on account of freight; that the said steamship wholly failed to deliver the said merchan- 153
dise which had been shipped and placed on board her, as aforesaid, in accordance with the valid terms and conditions of said bills of lading, or otherwise. As to the amount of said freight in American money at the time of said tender, this cross-respondent denies that it has any knowledge or informatiion thereof sufficient to form a belief.

154 WHEREFORE, this cross-respondent prays that the cross-libel be dismissed with costs.

BIGHAM, ENGLAR & JONES,
Proctors for Cross-Respondent,
Office and P. O. Address,
No. 64 Wall Street,
Borough of Manhattan,
City of New York.

State of New York, }
County of New York, } *ss.*:

155 GEORGE A. ANDERSON, being duly sworn, deposes and says:

That he is the Treasurer of Charles Pfizer & Company, Inc., the cross-respondent herein. That he has read the foregoing answer and knows the contents thereof, and that the same is true to the best of his knowledge, information and belief.

That the reason this verification is made by deponent and not by cross-respondent, is that the cross-respondent is a corporation.

156

GEORGE A. ANDERSON.

Sworn to before me this
31st day of January, 1923.

HERMAN SANDERS, JR.,
Notary Public,
Certificate filed in N. Y. County No. 22.

Consent and Order of Substitution.

157

At a Stated Term of the United States District Court, held in and for the District of New Jersey, at the Post Office Building, Newark, New Jersey, on the 28th day of February, 1923.

Present:—HON. CHARLES T. LYNCH, *D. C. J.*

CONVOY STEAMSHIP COMPANY, LTD.,
Cross-Libellant,

—against— 158

CHARLES PFIZER AND COMPANY, INC.,
Cross-Respondent.

On the written consent and on motion of Bigham, Englar and Jones, it is hereby

ORDERED that Bigham, Englar and Jones be substituted for Harrington, Bigham and Englar, as proctors for the respondent herein.

159

CHARLES T. LYNCH,
D. C. J.

We hereby consent to the entry of the foregoing order.

Dated, New York, February 28, 1923.

HUNT, HILL & BETTS,
Proctors for Cross-Libellant.

HARRINGTON, BIGHAM & ENGLAR,
Proctors Cross Respondent.

Testimony.

161

UNITED STATES DISTRICT COURT,

DISTRICT OF NEW JERSEY.

CITRO CHEMICAL COMPANY OF AMERICA,
Libellant,

—against—

STEAMSHIP "WILLDOMINO,"
Claimant.

CHARLES P. PFIZER & COMPANY,
Libellant,

160 —against—

STEAMSHIP "WILLDOMINO,"
Claimant,

and Cross Libel.

APPEARANCES:

MESSRS. HARRINGTON, BIGHAM & ENGLAR (MR. JAMES D. CARPENTER) for libellant.

MESSRS. HUNT, HILL & BETTS (MR. GEORGE C. SPRAGUE and MR. G. W. BETTS) for claimant
162 and cross-libellant.

Tried before Hon. Charles F. Lynch, at the Post Office Building, Newark, N. J., on Thursday, February 1, 1923.

By consent the cases will be tried together.

(Mr. Carpenter opens for the libellant.)

Mr. Carpenter: Our first exhibit is the bill of lading for 335 casks of the Charles Pfizer & Company shipment.

(Received and marked Exhibit L-1.)

Exhibits Offered in Evidence.

Mr. Carpenter: The second exhibit which I 163
offer is invoice from the vendors to the purchasers of the libellant Charles Pfizer of this Pfizer shipment.

Mr. Sprague: I object to the introduction of the invoice on the ground it has no bearing on the case.

The Court: I will admit it.

(Claimant's counsel prays an exception which is hereby allowed and sealed accordingly.)

(Sealed)

The Court: I am not passing on its relevancy at this time. If I find that it is irrelevant, I will 164
ignore it later on.

(Received and marked Exhibit L-2.)

Mr. Carpenter: I now offer a letter from the Williams Steamship Company to Charles Pfizer & Company, Incorporated, dated October 5, 1920.

(Received and marked Exhibit L-3.)

Mr. Sprague: Same objection to that exhibit.

The Court: Same ruling.

(Claimant's counsel prays an exception which 165
is hereby allowed and sealed accordingly.)

(Sealed)

Mr. Carpenter: In the second case of the Citro Chemical Company, I now offer the bill of lading.

(Received and marked Exhibit L-4.)

Mr. Sprague: Same objection as to the other invoice.

The Court: Same ruling.

166 (Claimant's counsel prays an exception which is hereby allowed and sealed accordingly.)

(Sealed)

Mr. Carpenter: Also the invoice dated the 10th of June, 1920.

(Received and marked Exhibit L-5.)

Mr. Sprague: Same objection as to the other.

The Court: Same ruling.

(Claimant's counsel prays an exception which is hereby allowed and sealed accordingly.)

(Sealed)

167 Mr. Carpenter: I now offer the freight bill from the Williams Steamship Company, dated August 14, 1920, which was paid. Attached to it is a delivery order dated August 16, 1920, also a letter to this libellant, dated October 2, 1920, from the Williams Steamship Company, saying that they were at that time ready to deliver and asking this libellant to place its lighter alongside of the steamer Tuesday morning at nine o'clock; also a letter from the Citro Chemical Company to the Williams Steamship Company, of October 4, 1920.

168 Mr. Sprague: Same objection to all these.

The Court: Yes.

(Claimant's counsel prays an exception which is hereby allowed and sealed accordingly.)

(Sealed)

(The exhibits are received and marked L-6, 7, 8 and 9.)

Mr. Carpenter: Will the claimant admit that this cargo citrate of lime was not delivered?

Mr. Sprague: Claimant admits that the cargo 169
was abandoned by the libellants to the claimant.

Mr. Carpenter: On what date?

Mr. Sprague: I believe it was October 3rd or 4th.

Mr. Carpenter: October 4, 1920.

Mr. Sprague: Yes.

Mr. Carpenter: And that it was in a damaged condition at the time it was abandoned.

Mr. Sprague: We will admit that it had been wet by sea water.

Mr. Carpenter: You admit it was damaged without going into the question of the amount of 170
the damage?

Mr. Sprague: We will admit that it had been under water.

(LIBELLANT RESTS.)

Mr. Sprague: Your Honor, we have taken about 450 pages of depositions. What is your Honor's pleasure as to whether we should read it to your Honor?

The Court: I will first hear the witnesses that are here now. We will take up the written matters afterwards. I think that will be the better plan. Are all of the depositions taken on one 171
side?

Mr. Sprague: All on one side.

GEORGE T. WILLIAMS, called and sworn on behalf of the claimant, testified as follows:

Direct examination by Mr. Sprague:

Q. Mr. Williams, you reside in New York City?
A. Yes, sir.

172 Q. What is your business? A. Steamships.

Q. How long have you been in that business? A. 30 years.

Q. In what capacity? A. Shipbuilding, ship operating.

Q. How long an experience in shipbuilding did you have? A. About seven years.

Q. And how long an experience in ship operating? A. 23.

Q. You are acquainted with the *Willdomino?* A. Yes, sir.

Q. Were you an officer of the Convoy Steamship Company, her owner? A. President.

173 Q. When was that vessel built? A. Completed April, 1919.

Q. And by whom? A. Cochrane & Sons, Vancouver, B. C.

Q. For whose order was it built? A. British Government.

Q. And did you buy it from the British Government? A. We did.

Q. Before you bought it did you have an inspection made of it? A. Yes, sir.

Q. Whom did you have inspect the vessel? A. Esplen Sons & McNaught, New York City.

174 Q. This vessel was equipped with turbines, was she not? A. Parson turbines, yes, steam turbines.

Q. In December, 1919, and January, 1920, did you have her turbines repaired and overhauled? A. Yes, sir.

Q. And by whom? A. Vulcan Iron Works, Jersey City.

Q. Under whose inspection? A. Inspection or supervision?

Q. Supervision, put it. A. Our own Port Engineer, Mr. Ebson, a turbine expert for the Vul-

can Iron Works and the Fletcher Iron Works, 175
I guess it is, Fletcher's we call it.

Q. Did you have a representative of Parson Turbine Company in on the job? A. The New York representative of Parson Turbine Company of, I think, it is Newcastle, Scotland, gave us the benefit of his experience during the entire repairs and improvements made to the engines.

Q. And was Esplen Sons & McNaught also on the job? A. Yes, they had one representative.

Q. Was the work done also under the supervision of Lloyds' Register? A. Yes, sir.

Q. The vessel was classed with that association, was it not? What classification did she 176
have? A. Lloyds' classification, class 100-A-1.

Q. Now, was there considerable work done on the turbines at that time? A. Quite a little, yes, sir.

Q. It cost you a considerable sum, didn't it?

Mr. Carpenter: That is immaterial, I submit, long before this voyage, six months before.

The Court: I will permit.

A. About $30,000.

177

Q. What instructions did you give to your Port Engineer, Mr. Coleman, as to the work that was to be done on this job? A. At the time she was repaired by the Vulcan Iron Works?

Q. Yes. A. To spare no expense to improve the operation of the turbines or the oiling system, to increase the capacity of the oil tanks, and the oil pipes and pumps, the oil strainers and to equip the duplicate pumps so that in case of failure of one oil pump, the other one would automatically pump the oil. We also installed alarm systems,

178 one of which was placed in the chief engineer's room—or any other improvements that could be made.

Q. Were all the recommendations of the various experts you have mentioned carried out? A. They were.

Q. After this work was done was there a trial test of the ship? A. Yes, sir.

Q. Were you present on that trial? A. I was.

Q. That was held here in New York? A. It was made, I think, on January 11th.

Q. Did you observe the operation of the turbines and the lubricating system at the time? A. Yes,
179 sir.

Q. What did you observe about it? A. Found they were working in first class order.

Q. You had no trouble whatsoever with them? A. The trial trip was very successful, I should say.

Q. Now, at that time who was the chief engineer of the vessel? A. Chief Engineer Donaldson.

Q. What can you say about Donaldson's qualifications as a turbine engineer? A. Well, I think he was chief engineer in the *Willdomino* about a
180 year and a half. It was always our opinion that he was a first class turbine engineer. He had been engaged by our representative Esplen & Sons of Liverpool who are consulting engineers, have a world-wide reputation. They consulted Mr. Donaldson, and reported that he had been operating turbines for, I think, the Dempster Elder Line.

Q. Did you have any criticism made of Donaldson at all by these experts that you have mentioned? A. None whatever.

Q. Now, the vessel, after this trial trip, made

a round trip to Danzig, did she not? A. Yes, sir. 181

Q. Was there any trouble on that round trip? A. None that I recall.

Q. At the end of that round trip to Danzig, she was, however, placed in dry dock here in New York? A. Yes, there was supposed to have been some slight damage to the hull. She was placed in the Robbins Dry Dock. I was there, along with our Port Engineer, Mr. Coleman, and there was very slight damage to the hull of just a few loose rivets. We repaired them, and the bottom painted, as I recall.

Q. Was that slight damage all repaired? A. 182
Yes, sir.

Q. And after the repairs had been made, what was her condition, in your opinion? A. I think we got a certificate from Lloyds, giving her a seaworthy certificate.

Q. In other words, this was all done under the supervision of Lloyds? A. Yes, sir.

Q. Was there anything done to the turbines at that time? A. I think not.

Q. After this dry docking in May, I believe you said of 1920, the vessel then proceeded to Norfolk and took a cargo of coal to Marseilles, did 183
she not? A. I think that was the trip to Marseilles, yes, sir.

Q. And after discharging that cargo, she took on board the cargo that we have the dispute about now? A. She went down to Messina, Italy, loaded some lemons, citrate of lime, and so forth.

Q. Now, whom did you have on board that vessel as master? A. Captain Beebe.

Q. When was he put on board the vessel? A. At the time she sailed from Norfolk on that particular voyage.

184 Q. Did you know anything about his qualification and history up to that time? A. Well, he had been serving as chief officer of our steamer *Willcasino*. We gave him charge of the *Willdomino* on the recommendation of Captain Thompson of the *Willcasino* and the letters and credentials that he had at the time.

Q. You had observed him yourself, had you, at the time he was on the *Willcasino?* A. Yes, sir.

Q. Was he, in your opinion, a proper master for that vessel? A. I considered him a first class officer while on the *Willcasino.*

185 Q. The chief engineer was Mr. Donaldson, was it not? A. Yes, sir.

Q. The assistant engineers and the assistant officers, how are they chosen on your ships? A. Pretty much always by the master.

Q. What instructions do you give to the master, if any, about the choosing of such officers? A. Well, not any special. It is generally understood the master will endeavor to secure first class officers who have proper licenses.

Q. Well, he is required to secure licensed officers? A. For his own safety in operating the

186 ship he naturally wants the best officers he can get.

Q. Now, did your company, the Convoy Steamship Company, have any office abroad? A. No, we had a representative, Esplen & Sons.

Q. In Liverpool? A. In Liverpool.

Q. Did you have any office or general agent in the Mediterranean? A. Well, we had agents at Genoa.

Q. Were they the ordinary ship agents? A. Yes, sir.

Q. You did not have any branch office at all, 187
did you, in Europe? A. No, sir.

Q. When did you first hear of this stranding? A. Well, I presume we had a wireless within a few hours after it occurred.

Q. You did not go up to Halifax yourself, did you? A. No, sir.

Q. Did you see the vessel when it first came into New York? A. Yes, sir.

Q. Where was she then when you first saw her? A. I think we had her alongside of a dock in Jersey City, discharging lemons.

Q. Did you go on board at the time? A. Yes, 188
sir.

Q. Did you make any investigation of the damage? A. Well, the damage was all under water at that time.

Q. Did you go into No. 1 hold at all, into the 'tween decks? A. Not at that time.

Q. Did you later go into No. 1 hold? A. I did, at the dry dock at the time of the repairs.

Q. Was that when she first went into the dry dock for the survey? A. That was the second time.

Q. Now, Mr. Williams, as a practical steam- 189
ship man of the experience that you have specified, what would you state as to the commercial feasibility of discharging that cargo—by the cargo I refer to the casks of citrate of lime in No. 1 hold, before the steel plates had been put on keeping the water out, assuming that up to that time she had 16 or 18 feet of water in that hold? A. I should say it was impractical from the stevedoring standpoint to take it out with any degree of success. I saw those hogsheads; they were more or less broken, the citrate of lime was

190 scattered around the hold. It was all submerged, would naturally be submerged.

Q. Well, do you think it could have been taken out by stevedores when it was under water? A. Not without divers, something to that effect.

Q. Did you ever hear of cargo of that kind being discharged from ships by divers? A. I did not.

Q. Could it, in your opinion, have been discharged when the vessel was in dry dock? A. No, sir.

Q. Why not? A. There is no facilities. There is no means of getting it off the dock to the
191 shore. The dry docks in the ship yard, particularly where she was, there was no room for the handling of cargo, even if you might have got it on the dry dock, and then got it into the yard in some manner: it is a very small yard, and was considerably crowded by equipment and dry docks and vessels: they have something like nine dry docks over there, as I recall it.

Q. That is Tietjen & Lang's? A. Tietjen & Lang's, yes, sir.

Q. Did you ever hear of cask cargo of this character being discharged from a vessel in dry
192 dock? A. I have not.

Q. Would it affect the stability of the ship to do such a thing? A. Oh, I hardly think so, a ship of her beam, no; that is, to discharge it from the ship. If you would pile it on deck, any great amount of it, you naturally would have some effect on the locking which the vessel was resting on.

Q. This was in a floating dry dock, was it not? A. Yes, sir.

Q. And the piling of any amount of the cargo up on the deck would cause the floating dry dock

to lift one way or the other, wouldn't it? A. That is sort of natural, yes, sir. 193

Q. Now, the work, as I understand it, the putting on of these plates so that the vessel would hold water, was completed on October 1st. Did you at once discharge this cargo, as soon as the plates had been put on? A. I believe we discharged it as soon as the vessel was repaired and floated from the dry dock. That was my instructions.

Q. In the lighters? A. I believe it was in the lighters, yes, sir.

Q. And it was at that time that you gave this notice that the libellants have introduced requiring them to come and take delivery? A. I believe we requested delivery several times, and there was refusal most of the time to take it. I know we made every effort to discharge as quick as possible. 194

Q. And they then abandoned the cargo to you, didn't they? A. I so understood at the time, yes, sir.

Q. You then sold the salvaged stuff to Mr. May? A. We sold it to somebody for our freight charges, the highest bidders, I believe.

Q. Could the cargo, in your opinion, have been discharged prior to the date that you did tender delivery to the Citro Chemical? A. I think it was not practical to do so, we were very keen about it at all times. We understood that it was important that we discharge it as soon as possible. 195

Q. Did either of the libellants, the Citro Chemical Company or Pfizer & Company, advise you that this was a very valuable commodity, citrate of lime? A. I don't remember exactly about that.

Q. Did either of them advise you that the characteristics of the commodity were such that they

196 were not badly damaged by first immersion in sea water, but the damage increased very rapidly with the additional time under water? A. I think there was some general talk along that line. I would not remember just who said it.

Q. Mr. Betts said that he did not get your answer as to whether it was practical or impractical for that cargo to have been discharged before the repair plates were put on? A. Impractical, I said. I think it was not practical.

Q. That trial test was in January, 1920, was it not? A. The trial as to the engines?

197 Q. Yes. A. Sunday, January 11, 1920.

Q. That is all. Mr. Williams.

Cross examination by Mr. Carpenter:

Q. Mr. Williams, did you employ any stevedores to unload that citrate of lime? A. That is a part that I don't handle, the particulars of. Our Mr. Dwyer looked after that.

Q. You were in charge of this whole situation, weren't you? A. I am president of the company. I don't operate all the details of the company.

Q. Now, you said that every effort possible was

198 made to unload that citrate of lime? A. To the best of my knowledge, yes, sir.

Q. Now, what efforts did you make between the 27th of July, when the vessel struck, and the 4th of October, when you tendered the cargo? A. I was more or less in touch with our Mr. Dwyer who had charge of that. We discussed it more or less. We discharged it as soon as we believed it was possible to do so.

Q. Well, I am asking you what you did in an effort to get it out. Did you do anything except discuss it? A. Well, I should say I left that

more in charge of Mr. Dwyer. I know that he 199
made every effort to discharge it as soon as possible.

Q. What day did the vessel reach New York Harbor? A. I don't know exactly. It was in August some time, I think.

Q. August 7th, wasn't it? A. I don't know exactly.

Q. The first time you saw the vessel she was at pier C, Jersey City, unloading lemons, is that right? A. That is my recollection.

Q. When that vessel was in Halifax harbor, you knew, did you not, the names of the consignees of the citrate of lime? A. Did I, per- 200
sonally?

Q. Yes. A. No, sir.

Q. Well, you had the records in your office, didn't you? A. Well, I did not examine all the records of all our shippers on our steamers.

Q. Did you notify Charles Pfizer while the vessel was in Halifax harbor that the cargo was injured there, the citrate of lime? A. Did I, personally?

Q. Yes. A. No, sir.

Q. Did your office send them any letters notifying them that the cargo was damaged? A. I 201
couldn't say, but I presume our records will show that.

Q. Did you personally make any effort before that vessel reached New York to find out what sort of cargo citrate of lime was? A. No, sir.

Q. Or what damage salt water would do to it? A. I don't think I perhaps knew there was any citrate of lime on board.

Q. Did you know that the water was confined to hold No. 1? A. That was my understanding from the various reports, yes, sir.

202 Q. You learned that when the vessel reached Halifax, didn't you? A. That was the report we had from our port captain who was up there.

Q. After getting that report did you make any effort to find out the nature of the cargo in that hold, whether it was valuable or not, whether it was perishable or not? A. I don't think so.

Q. Why didn't you? A. I didn't consider it necessary.

Q. Now, then, who gave the instructions to unload the cargo of lemons before anything else? A. I don't know unless Mr. Dwyer.

Q. What is his position? A. Operating man-
203 ager.

Q. Was he over or under Captain Gilboy? A. I would say he was over Captain Gilboy.

Q. When the vessel reached New York, you sent Captain Gilboy out to her? A. I presume that in the course of our business he proceeded to go to her. If he didn't come from Halifax, he went to Halifax to represent the owners.

Q. How long did it take the vessel to unload the cargo of lemons on Pier C? A. Oh, I don't know, three or four days, as I recall it. We were obliged to reload them off the dock again and
204 dump them out in the ocean. The city authorities in Jersey City condemned the lot.

Q. Now, all your efforts up to that time had been to get this vessel down to New York so that the lemons could be saved, is that right? A. I wouldn't say that was true, no, sir.

Q. Well, wasn't that the whole endeavor of your company? A. Why, it was naturally our endeavor to get her here as soon as possible to make repairs and discharge her, and get her in operation again. She cost us a large amount of

money, and we were naturally interested in hurrying along. That is our business, yes, sir. 205

Q. Now, then, I want to know just what you did while this vessel was in New York in trying to get that cargo of citrate of lime out of her? A. Well, as I say, I think we did it as soon as possible. We wanted to discharge it.

Q. That is your opinion. I want to know the acts, what you did, what efforts you made? A. Well, you will have to ask Mr. Dwyer, as I told you, I am not handling cargoes of our ships.

Q. Now, after the vessel was at Pier C, Jersey City, you took her over to New York, didn't you? A. I think—— 206

Q. 130th Street? A. I think she discharged from corkwood at about 130th Street, New York.

Q. Did you make any effort whatsoever to get the citrate of lime out there? A. I think it was found it was just as impractical there as at any other time. The vessel was still with water in No. 1 hold. You perhaps know the bow was all stove in and the collision bulkhead was all torn apart. She was full of water in No. 1. This water never left there while she was afloat.

Q. Can you give us the date when the vessel first went on dry dock? A. No. 207

Q. Did you make any effort to get her on dry dock before you unloaded the lemons? A. I couldn't say whether she was on dry dock for survey before the lemons were discharged or not.

Q. Did you make any effort to get her on dry dock before she was put on dry dock? A. Oh, I think we naturally tried to get her on as soon as possible. I don't remember the details of that.

Q. Can you answer my question? A. Let us have it again.

Q. (Question repeated). A. Seems as though

208 that is a funny one to me. I tell you we made an effort to get her on dry dock as soon as possible. I don't know whether there was any delay between the time we made the effort and when she was put on.

Q. Did you make any effort for her to get a dry dock when she was in Halifax or on her way from Halifax? A. I think we made some arrangements.

Q. What arrangements did you make? A. The customary. We have a ship in distress, we are naturally looking around for a dry dock.

209 The Court: We are interested in what you did in this case, not what you naturally do.

The Witness: I don't remember.

Q. Don't you know that you did not do anythig or make any effort to get her in dry dock until she got in? A. I do not.

Q. Did you know that it was entirely possible for divers to take those casks of citrate of lime out of hold No. 1 while she was in Jersey City? A. I presume anything is possible.

Q. You know that divers occasionally do remove
210 cargo from vessels, don't you? A. Oh, I think in case of bullion, something of that kind.

The Court: In case of what?

The Witness: Bullion, gold, silver.

Q. And other kinds of cargo is removed by divers, do you know that? A. Perhaps something very highly valuable it might be done. It is seldom that I have heard of it.

Q. Is it an expensive way to remove cargo by divers? A. Very.

Q. Didn't your company determine that you would make no efforts to remove the citrate of lime until the repairs had been completed to the vessel? A. Why, it was talked over considerably between myself and some of our organization as to the possibility of it. 211

Q. Well, I asked you, sir, if you did not make that determination, not what you talked over, but didn't you decide to take out the citrate or make any effort to get it out until the repairs were completed? A. I think it was practically impossible, yes, sir.

Q. Have you brought over here, Mr. Williams, the cables that passed between your office and *Willdomino*, or her master, when she lay Ponta Delgada? A. You say have I brought them over? 212

Q. Yes. A. No, sir.

Q. They have not been brought over to you this morning, have they? A. I haven't seen them, no, sir.

Q. Well, there were cables that passed between your office and the vessel when the vessel was at Ponta Delgada? A. That is probable, yes.

Q. There were cables between the vessel and your office when the vessel was at Sydney, were there not? A. Perhaps telegrams, yes. 213

Q. Were there cablegrams between the vessel and your office when the vessel was at Lisbon, Spain? A. I presume so.

Q. You have copies of all those cables in your office, now? A. I should have.

Q. But did you give your master standing orders to coal at Sydney? A. I don't know as he had standing orders. We have made it a sort of practice to coal at North Sydney; as I recall it, along about that period we were having great difficulty in getting ship's bunkers on the Atlantic

214 Coast of the United States, as you know in those days there were many embargoes on coal, and so on.

Q. Well, did the master of the *Willdomino* have orders to coal this vessel at Sydney? A. You mean on this particular voyage?

Q. Yes. A. I don't know; he might have had; you mean at the time of leaving Lisbon?

The Court: If you don't know, why just say so.

Q. Why were you hesitating about that answer?
215 A. Well, I am hesitating as to whether it was when he was at Lisbon or at Ponta Delgada.

Q. When he was at Ponta Delgada, did he have orders to coal at Sydney? A. I think he naturally would have had orders to coal at the nearest coaling port, which would have been North Sydney.

Q. Did the master, when at Ponta Delgada, have orders to go to Sydney for coal? A. I don't remember.

Q. Did you know that when the *Willdomino* left Ponta Delgada it would touch Sydney in all probability? A. I couldn't say.

216 Q. You cannot say? A. No, I don't remember all the details of the ship's operation, three or four years ago.

Q. Have you looked at your records at all with reference to this trial trip for it? A. No, sir.

Q. That is all.

Re-direct examination by Mr. Sprague:

Q. When the *Willdomino* arrived in New York she went into the hands of Lloyds' agents, didn't she, as representing the underwriters?

Mr. Carpenter: I object to that. What is the difference as far as the hull is concerned? 217

Mr. Sprague: For the purpose of deciding whether it was proper to go into the dry dock before she discharged these lemons or after. They seemed to be making a point of it. I want to show it was entirely outside our hands.

The Court: You may show that.

Q. (Question repeated). A. Yes, sir.

Q. And whom did you have representing you at that time on the question of these repairs besides Mr. Coleman? A. I think we had a representative of Esplen & Sons, New York. 218

Q. Did you also have Frank S. Martin & Sons? A. I think we did, yes, sir, as our surveyors.

Q. Was the question of when she should go into dry dock a question which was largely in their discretion? A. I think wholly in their hands.

Q. Now, I believe you stated on cross examination that you came to the conclusion that it was impractical to discharge this cargo before these repairs were made. What basis did you have for that conclusion? A. Well, one is that I saw the cargo after the vessel was on the dry dock, and the water had run out of the hold. Many of those hogsheads that were bursted, the citrate of lime was covered all over the bottom of the vessel and all over the lower tiers of hogsheads. The hogsheads were very poor quality. The seams were open. Nothing to stop the water from running in and out to my mind. Furthermore, I don't think that it is practical to employ divers to take a few hogsheads of citrate of lime out of the lower 219

220 hold of a vessel. I don't think that is done very much in discharging cargoes.

Q. That is your conclusion as an experienced steamship man, was it? A. Yes, sir.

Q. And did you have any advice from these experts whom you employed on that subject? A. Experts as to what?

Q. Well, for instance, Frank Martin? A. Oh, they all seemed to concur in the same opinion that there was nothing to be done until the vessel was repaired and the hull could be pumped out.

Q. The *Willdomino* was a British vessel, was she not? A. Yes, sir.

221 Q. Flying the British flag? A. Yes, sir.

Q. And at North Sydney you found it much easier to bunker than you would in a port of the United States, due to that fact? A. I think we were attempting to guard ourselves against the possibility of being unable to get bunkers. I know the *Willdomino* went on one voyage, and at North Sydney took 3,000 tons of coal in it; she delivered part of it to one of our steamers up at Portland.

Q. Also a British steamer? A. Also a British steamer.

222 Q. At that time there was an embargo against coal? A. It was practically impossible to get bunker coals here for foreign steamers at that time.

Re-cross examination by Mr. Carpenter:

Q. You know, don't you, Mr. Williams, that Lloyds' agents only recommend things to the owners, they did not take over the operation of this vessel, did they? A. Lloyds ofttimes——

Q. What they did in this case, I am speaking of? A. Well, I don't remember exactly. Mr. Dwyer handled those matters.

Q. You did not get anything from Lloyds' except recommendations, did you? A. I couldn't say. 223

Q. You couldn't say. Then, why did you say that this vessel went into the hands of the Lloyds' agent representing the underwriters as soon as she got here? A. That is usual.

The Court: Well, we don't want anything that is usual. We are trying to get at this case. This case is what we are interested, what was done in this particular case.

224

Q. (Question repeated). A. I don't know.

Q. You don't know? Well, your own men operated that vessel to Jersey City, and from Jersey City up to 130th Street, didn't they? Your own crew? A. Oh, yes.

Q. And the master was in charge of the vessel all the time she stayed here in the Port of New York? A. He is always in charge.

Q. And he took his orders from your office, too, didn't he? A. I presume so.

Q. At all times? A. I presume so.

Q. That is all.

225

By Mr. Sprague:

Q. Mr. Williams, you had before you the surveys from the Lloyds' surveyor at Halifax, requiring this vessel to be discharged of her cargo and then dry docked for repairs, didn't you? A. Well, I presume that is all a matter of records, whatever we have. I say I don't know all the details. I know they ordered the vessel down here for repairs, and they sent a tugboat along for a convoy as a matter of safety.

226 Mr. Sprague: I call the attention of the Court to Exhibit 1, already marked in evidence in this case, which is the report of the Lloyds' surveyor at Halifax.

Q. Mr. Williams, although Lloyds' make recommendations, what is the effect upon the owner if those recommendations are disregarded?

The Court: That is a conclusion, isn't it, for the Court, a conclusion of law?

Mr. Sprague: Well, I think it is a question of fact, because their classification is
227 cancelled, if he does not carry out the recommendations, so he cannot sell her again or collect the insurance.

The Court: Cancelled by reason of what?

Mr. Sprague: By reason of failure to comply with their requirements.

The Court: As provided in some written document of some kind?

Mr. Sprague: Not that I know of.

The Court: Well, why is it cancelled? What is the authority for cancellation?

228 Mr. Sprague: Because the underwriters all recognize Lloyds as their agent and as the parties to pass upon the question of repairs, classification, and if their recommendations are not carried out, then they will refuse to pay insurance.

The Court: I think we ought to confine the witness to facts; what took place; what was said; what was done; we can decide, then, the effect of what they did.

Q. That is all.

ALBERT C. COLEMAN, called and sworn on behalf of the claimant, testified as follows: 229

Direct examination by Mr. Sprague:

Q. Mr. Coleman, what is your business? A. Marine engineer.

Q. How long have you been in that occupation? A. Oh, 25 years.

Q. What actual experience have you had as a marine engineer at sea? A. As assistant chief on ocean steamers, about twenty years or more.

Q. What experience as chief? A. Almost twenty years' experience.

Q. American or British? A. American. 230

Q. What license do you hold? A. Chief engineer of ocean steamers in unlimited tonnage.

Q. For how long? A. For about 20 years.

Q. Were you connected with the Convoy Steamship Company in 1920? A. Yes, sir.

Q. When did you become connected with the Convoy Steamship Company? A. Well, in December, late in December, 1919, or the first day or so in January, 1920.

Q. And in what capacity? A. As Port Engineer.

Q. What did you have to do, if anything, with the repairs on the turbines made in January, 1920? A. I directed them and inspected them to a large extent. 231

Q. Those were made at the Vulcan Iron Works, were they? A. They were made at the Vulcan Iron Works.

Q. Did you ever hear of Mr. Ebsen, Mr. Anderson or Mr. Dickson, these gentlemen that have been mentioned? A. Yes, sir.

Q. How often did you make inspections while

232 that work was going on? A. I was constantly on the job.

Q. You were daily in the shop? A. Either in the shop or aboard the ship when the installation was going on.

Q. Now, prior to that time had you any experience with turbines yourself, personally? A. Yes, I was chief engineer of a turbine ship for over a year during the war time.

Q. An American ship? A. An American ship.

Q. What type of turbines did they have? A. Curtis type, General Electric type.

233 Q. Was that similar to the Parson type that was on this vessel? A. In many respects.

Q. What about its lubrication? A. Its lubrication is the same.

Q. What about the oil pumps? A. Well, the oil pumps in the ship I was on was exactly the same as the *Willdomino.*

Q. Worthington pumps? A. Worthington pumps, two duplex.

Q. After the turbines had been repaired and were put back in the ship, did you have a trial? A. The turbine was tried in the shop first of all, and then tried in the ship.

234 Q. Were you present at the trial in the shop? A. Yes.

Q. What was the result? A. It was successful.

Q. And on the ship? A. Successful, too.

Q. You were in the engine room throughout during the trial trip? A. Yes.

Q. Did you observe the operation of the turbines and the operation of the lubricating system at that time? A. Yes, sir.

Q. What can you say as to the operation? A. Everything was first class, in good condition.

Q. Now, who was the chief engineer at that time? A. Mr. Donaldson. 235

Q. Was he a competent man in your opinion? A. Yes, sir.

Q. Did you see him daily in connection with these repairs? A. Yes.

Q. Was he in charge of the engine at the time of the trial test? A. Yes, sir.

Q. Did he appear to be a man who knew his business with turbines? A. Sure.

Q. Now, this ship made a round trip from here after this test in January, 1920, returning in May or April, 1920, I understand? A. About that.

Q. Did you examine the turbines after she had come back on that trip? A. Yes, sir. 236

Q. Did you find anything the matter with them? A. No.

Q. Any reports made to you as to any trouble on that ship? A. No. They did very well.

Q. The vessel was in dry dock for her hull, a little rivet leakage, was it not, at that time? A. Yes.

Q. Did you go over to the dry dock at the time she was in? A. Oh, yes.

Q. Did you see her then when she was here, when she was out? A. All over.

Q. Were the repairs made that were called for at that time? A. Yes, sir. 237

Q. What was her condition at the time when she left that dry dock? A. Very good.

Q. What was the condition of the turbines? A. Very good, too.

Q. And the condition of the pumps, the oil pumps, lubricating system? A. Very good.

Q. The vessel then sailed from here to Norfolk, I understand, took a cargo abroad. When did you next see her? A. From what time?

238 Q. From the time you had her dry docked over at Robbins in May, 1920? A. When she came into the harbor of New York from Halifax.

Q. Did you go down and meet her? A. Yes, sir.

Q. On a tug? A. On a tug or a launch.

Q. What did you observe her condition to be then? A. She was slightly down by the head with the forward hold full of water.

Q. Did you see the water in the forward hold? A. Oh, yes, sure.

Q. When did you see that? A. The day I met her in New York Harbor.

239 Q. How far up in the forward hold was that water? A. Very close to the 'tween decks.

Q. Did you examine the turbines and the pumps in the engine room? A. Yes, at that time when she came in, yes.

Q. And conversed with the chief engineer? A. Yes.

Q. What condition did you find the turbines in? A. The high pressure turbine was disconnected. The low pressure turbine was working, was able to work.

Q. Did you take the covers off the high pressure
240 turbine to examine conditions? A. Afterwards, for a survey.

Q. When? A. I think we took them off for the surveyors to see them several days afterwards.

Q. Was that the time she first went into dry dock or before she went into dry dock? A. No, we took them off while she was laying at one of the docks, discharging cargo, so as to give the surveyors a chance to figure on the work.

Q. Were you there when they were taken off? A. Yes.

Q. What condition did you find that turbine in?

A. We found the blade on the high pressure badly cut up, broken and bent, and found the shaft down. The bearings had been melted and thrust pads melted. 241

Q. When you say the bearings down, do you mean the bearings underneath the rotor had worn out, or the bearings to the stern of the rotor? A. Both.

Q. So that both bearings had worn out? A. Melted.

Q. Was it cut off and gone down? A. Gone down. And the plates had bent each other and broke each other. The static blades and the moving blades had come in contact. 242

Q. Now, you say that the high pressure had been cut and she was connected with the low pressure turbine? A. Yes.

Q. Did you observe that connection? A. Yes.

Q. Was it properly made in your opinion? A. Yes.

Q. Have you ever had to make such connections yourself with turbine engines at sea? A. Not myself.

Q. But you are familiar with the practice, are you? A. Oh, sure.

Q. Now, can you state what time she went into dry dock for the first time? A. I have some notes here. 243

Q. I think I have a personal memorandum of yours if you need to refresh your recollection from looking at it, I think his Honor will allow you to do so? A. I got the first certificate at Tietjen & Lang's on Wednesday, August 25th.

Q. How long was she in the dry dock at that time? A. Says undocked Thursday, August 26th. My notes say "On 26 hours."

Q. What was done at that time? A. Con-

244 tractor's representative of Lloyds, representatives of the London Salvage Association Underwriters surveyed all over to fix the prices and amount of damage and price to repair same.

Q. When was she undocked, was she slipped into the water alongside? A. Turned alongside into the wet dock again.

Q. I suppose there was considerable demand for dry docks at that time? A. Very big demand.

Q. When was she next put on the dry dock? A. Saturday morning, August 26th.

Q. That was two days after she was let off? A. Yes.

245 Q. What was done at that time? A. They cut away some of the bow to get patterns, something like that, to get shapes.

Q. Who do you mean cut it away? A. The contractors, Tietjen & Lang.

Q. In other words, the contract had been let between August 26th and August 28th? A. Yes, sir.

Q. The contractors put her on to cut away the bad part and make the frames, is that right? A. Yes.

Q. How long was she on the dry dock then? A.

246 She undocked the same day, on eight hours.

Q. Eight hours? A. Yes.

Q. When was she next in the dry dock? A. She docked to complete repairs to bow September 21st.

Q. And how long was she on that time? A. Came off October 2nd, 11 days altogether.

Q. What was being done at that time? A. The bow was being repaired, the hull was being repaired.

Q. Now, at the time that she was first put i..

the dry dock, I believe, you have stated you were there personally? A. Yes, sir. 247

Q. Did you observe the extent of this damage? A. Yes, sir.

Q. Can you state to the Court, please, how great a damage it was? A. The steel fore foot was broken and a piece missing about all the floors in the forepeak and one or two in the No. 1 hold were bent back, pushed up and back, and of course, the shell plating and frames were broken or missing in the same plates.

Q. What about the bulkhead between the peak tank and No. 1 hold? A. The bulkhead was pushed back too, pushed up back and broken. 248

Q. Was there evidence of the water having gone through that bulkhead? A. Yes.

Q. Does that account, in your opinion, for the water in the No. 1 hold? A. Yes.

Q. Was there any of the plates in the hold of the ship broken back of the bulkhead? A. Bent and broken.

Q. Even back of the bulkhead? A. Yes, sir.

Q. Now, Mr. Coleman, at the time that you went down to meet this ship that was coming into the Port of New York, did you ask the chief engineer what happened to cause this trouble? A. Yes, sir. 249

Q. And did he hand to you the valve spindle stripped? A. Yes.

Q. Which had caused the pump to stop working? A. Yes, sir.

Q. Will you produce it in Court?

Mr. Sprague: I would like to have this marked for identification.

(Marked Claimant's Exhibit 1 for identification.)

250 Q. Mr. Coleman, showing you now Claimant's Exhibit 1, I ask you to state, please, just where this spindle rod, do you call it, valve spindle, lies in a Worthington pump? A. Inside the steam chest.

Q. Well, now, what do you mean by the steam chest? Just describe it? A. The part of the pump where the steam is ready to be admitted to the pump, is filled with steam.

Q. Well, is that tight? A. Oh, yes.

Q. And is the steam chest tight? A. Must be.

Q. It isn't open to observation then? A. No, couldn't be.

251 Q. What is the function of this nut that appears on this valve spindle? A. That is to move the valve that allows steam into the cylinder, and also allows it to escape, that is, after doing its work.

Q. Well, now, is this in the same condition that you found it when it was handed to you by the chief engineer? A. Yes.

Q. Now, what was the difficulty with that? A. The threads are stripped between the nut and the spindle.

Q. So that the nut, instead of holding came off?

252 A. The nut did not move the valve any more, it moved on the spindle instead of moving the valve.

Q. What was the effect of that nut not moving the valve? A. The pump does not work. The steam does not come into the pump stops.

Q. Now, is there any way you can discover that while the pumps were being operated? A. None possible.

Q. That is an ordinary wear and tear, isn't it, in your opinion? A. Yes.

The Court: Is that the proper sized nut?

The Witness: It is the sizes supplied by the pump makers. 253

The Court: I did not ask who supplied it. I asked is it the proper size?

The Witness: It was.

The Court: Why does it pass over, if you know, the lower part of the—what do you call it—the thread on the spindle?

The Witness: The thread on the spindle.

The Court: Pass over the lower first part of the thread on the spindle and then takes hold about half way up and works properly? 254

The Witness: Because the threads on the small part are worn, stripped. The points are off them.

The Court: Is that visible?

The Witness: Yes, sir.

The Court: Aren't the threads on the upper part of the spindle larger than on the lower part?

The Witness: They are larger now, sir. The small ones are worn and stripped.

The Court: You think originally they were all the same size? 255

The Witness: Yes, sir.

The Court: Do you know whether the nut fastens up at the end or partly up?

The Witness: Probably about half way, somewhere about half way.

The Court: Have you examined the interior of the nut, as to whether or not the threads are worn?

The Witness: They are slightly worn.

The Court: But that does not prevent

256 them from holding when it is applied higher up?

The Witness: Yes, sir, to the full size.

The Court: All right.

By Mr. Sprague:

Q. How often are pumps of this character usually opened up in ordinary steamship practice unless there has been trouble? A. They very often run for years without being opened up.

Q. Well, is it your answer then, that they aren't opened until there is trouble? A. Generally
257 speaking.

Q. That is the usual practice? A. Yes.

Q. Had you opened this pump yourself prior to this accident? Had you opened it up in January? A. No, sir.

Q. Did you open it up after it came into port? A. Which time?

Q. In August, 1920? A. Yes.

Q. That is all.

Cross examination by Mr. Carpenter:

Q. I think you said the engineer handed it to
258 you when you got down to see the boat the first time? A. He did.

Q. And it was worn then? A. This is when the ship came from Halifax?

Q. Yes. A. Yes, he had it first as an exhibit to show me that there was trouble.

Q. And that trouble is just due to ordinary wear and tear, isn't it? A. I should think so, yes.

Q. You, as an engineer, expect that wear and tear is going to injure the machinery when it occurs? A. Well, I don't think wear and tear is an injury.

Q. Oh, you don't think wear and tear is an in- 259
jury? A. Wear and tear happens in everything that moves.

Q. Well, you had those engines out of the ship thoroughly overhauled and repaired in January, 1920, didn't you? A. The high pressure engines.

Q. December and January. Now, if you had opened up that pump at that time you would have discovered that wear and tear, wouldn't you? A. I don't think so. It wouldn't have been so apparent then. It increased between the time of January and the time it finally gave out.

Q. Sure, of course, it would. But you are an 260
experienced engineer, aren't you? A. I hope so.

Q. And if you had opened up the pump, that is the first thing you would have looked at, isn't it? A. If I had taken the pump all to pieces, I would have discovered probably—I might have discovered it, but it is an unusual thing.

Q. Isn't it prudent to have your engines overhauled once a year? A. We overhaul them every time it is necessary.

Q. I asked you if it isn't prudent to have it done once a year? A. Yes, oftener, if necessary.

Q. Or oftener? A. Or oftener.

Q. On the ships in your line you overhaul them 261
once a year, anyhow, don't you? A. We are overhauling them all the time.

Q. Well, don't you have one general overhauling a year? A. No, not necessarily.

Q. Not necessarily? A. No.

Q. But you were giving this *Willdomino* an overhauling in the latter part of 1919, and the first part of 1920, weren't you? A. We were repairing damage to her.

Q. Damage to the engines? A. Damage to everything that needs repairs.

262 Q. Well, was the damaged part confined to the machinery of the ship? By that I mean, the engines. A. Engines, pumps, boilers, everything that needed apparent repairs, needed repairs or might need repairs.

Q. Well, I want to know if there was damage to the pumps as well as to the engines in December, 1919 and January, 1920? A. There was some——

Q. Oh, yes or no?

(Question repeated.)

A. No.

263 Q. What did you mean, then a minute ago? A. Let me qualify it. Not to the oil pumps.

Q. To the other pumps? A. The feed pumps had some repairs.

Q. Oil feed pumps? A. No, the boiler feed pumps.

Q. That damage was caused by one of three things, wasn't it, either improper lubrication or improper care of the engines or just wear and tear?

Mr. Sprague: Are you referring, Mr. Carpenter, to the damage to this valve

264 spindle or the damage in 1920?

Mr. Carpenter: The damage that you repaired.

Mr. Sprague: That he repaired in January, 1920?

A. The feed pumps now I am speaking about.

Q. Yes. A. The damage was caused by wear and tear,—what were the other two things?

Q. Or careless operation. A. Yes. What was the other one?

Q. Or improper lubrication. A. Yes. 265

Q. Now, you didn't know exactly which one of the three this trouble was due to, did you? A. In the feed pump, you mean?

Q. No, in the turbines now? A. Oh, the turbines. I am speaking of the feed pumps.

Q. All right. For the feed pumps. Do you know which it was due to? A. No.

Q. Then, why didn't you look through them, that particular time, and see if everything was all right? A. Because the pump was working good.

Q. How much of an examination did you make of that pump? A. Of these oil pumps? 266

Q. Yes. A. Repacked the piston with brass rings.

Q. Why didn't you take them apart to see that everything else was all right? A. Nothing else was wrong with them.

Q. Why didn't you take them apart and find out? A. Because to take everything apart which shows no trouble would mean disassembling the whole ship all the time which would be impossible and altogether out of the question.

Q. That is the best answer you can make, is it? A. Yes, sir.

Q. I think that is all. 267

Re-direct examination by Mr. Sprague:

Q. At this time that you made these repairs in January, 1920, the vessel was less than a year old. Wasn't she? A. About that.

Q. And she made trips aggregating about six months before this other damage occurred? A. Yes, sir.

268 *Re-cross examination by Mr. Carpenter:*

Q. After the vessel was only six months old, you had to take all her turbines out and spend nearly $30,000 fixing them up, didn't you? A. On account of an accident to them.

Q. What is that? A. Repair an accident to them.

Q. Yes, but the accident was caused either by carelessnes or improper lubrication, isn't that so? A. Yes, sir.

Q. Carelessness of the engineer or improper
269 lubrication? A. Yes, sir.

Q. The engineer was who? A. Donaldson.

Q. He is the man who was on the vessel when she had the trouble off Ponta Delgada? A. Yes, sir.

Q. He is the man was with her right through from there to New York? A. Yes, sir.

By Mr. Sprague:

Q. Well, you remedied the lubrication, didn't you, in January, 1920? A. We improved it.

Q. Beg pardon? A. We improved the lubrica-
270 tion.

Q. You remedied it and then had a trial test and the new test ran all right? A. Oh, yes.

Q. So that you finally decided it was bad lubrication, didn't you at that time? A. Certainly, that the accident was due to lubrication.

By Mr. Carpenter:

Q. When the vessel got into New York Harbor and you examined her the second time, her bearings were all burned out? A. Again, yes, sir.

Q. That is the second time they had all burned out? A. Yes, sir. 271

Q. The second time while you had the same engineer? A. Yes, sir.

Q. And the blades were stripped from the turbines? A. Yes, sir; some of them.

Q. And the pump was worn out? A. No, sir.

Q. That particular portion of the pump was worn out, wasn't it? A. That had been replaced.

Q. Oh, it had been replaced. When was it replaced? A. At the time the accident took place, after the accident took place.

Q. What accident are you speaking about now? A. The accident to the turbines when this pump stopped. 272

Q. Oh, well, you were able then, if this particular part that you have brought here was immediately replaced at sea—the trouble that that caused was remedied immediately, wasn't it? A. The trouble to the pump itself, but the turbines couldn't be remedied so quickly.

Q. Now, then, the fact that that particular pump wasn't working and wasn't furnishing oil to lubricate the engines, would be shown to the engineer immediately, wouldn't it? A. Yes, sir.

Q. What would show it? A. An alarm—no, that wouldn't be shown to the engineer immediately. What would be shown would be the alarm would go off on account of the lack of oil. 273

Q. And then it was the duty of the engineer to shut down his engines at once? A. Yes, sir.

Q. Now, before the alarm would sound the engineer could see it, either by the thermometer or by his gauge, couldn't he? A. Yes, he could see the oil gauge was getting less.

Q. If the engineer was competent, and was on the job, he would see that there was trouble before

274 the alarm went off? A. He has fifty things to look after, he couldn't be looking at all at once at this instant.

Q. He has fifty things to look after? A. Yes, in the whole plant.

Q. You have been to sea, haven't you? A. Yes, sir.

Q. And you have had fifty things to look after, haven't you? A. Yes.

Q. Did you ever let your bearings burn out? A. Sometimes.

Q. You have? A. They burn out with everybody.

275 Q. Did you ever burn out your engines to such an extent that you burned your blades off of your turbines and your bearings so that you could not—— A. No, not in the case of the turbines, no.

Q. Did you ever have your bearings burn out twice on the same ship within a year? A. On a reciprocating ship, yes.

Q. On turbines? A. No.

Q. That is all.

ERNEST H. ANDERSON, called and sworn in be-
276 half of the claimant, testified as follows:

Direct examination by Mr. Sprague:

Q. Mr. Anderson, what is your business? A. Marine engineer, designer principally and naval engineer.

Q. Designer of what kind of machinery specially? A. Steam turbines.

Q. And are you connected with any steam turbine company? A. Yes, Parson Marine Steam Turbine Company.

Q. And where are they located? A. Ballston on 277
Tyne, England.

Q. What is your position with them? A. Technical engineer.

Q. For what territory? A. America.

Q. Now, how long have you been connected with the Parson Marine Turbine Company? A. About 22 years.

Q. And what has been your experience during that time with turbines? A. Oh, from designing, carrying out the construction of the working plan in an office, you see, supervising, then looking after the building of those engines in the engine shops, and finally attending trial trips and passing the engines into the shipowner's hands, or in the case of naval vessels, into the Navy Department's hands. 278

Q. Does your company build turbines in the United States? A. No, sir.

Q. Are there turbines built in the United States—are there turbines built in the United States? A. Yes.

Q. By what arrangement? A. Under a license agreement, you see.

Q. Did the Halliday Company of Spokane, Oregon, have a license arrangement with Parson for building those turbines? A. Yes, sir. 279

Q. And they built the turbines in the *Willdomino?* A. Yes, sir.

Q. Now, did you ever see the turbines in the *Willdomino*, personally? A. Oh, yes, you mean I saw them in the Halliday shops on a visit, while they were under construction, and next I saw them was in January, 1920, in New York Harbor here.

Q. Tell us something about the first occasion of your seeing them? That was before they went

280 into the ship, wasn't it? A. Oh, yes, that was just in the preliminary stages of the construction.

Q. And how long an inspection did you make of them at that time? A. Oh, I was in that plant, I think, two days during 1918, on two occasions by the way.

Q. Did these turbines seem to be being built in the proper fashion? A. Yes, sir, and by a competent man whom we helped them to obtain.

Q. Now, in 1920, when you saw them again, in January, I believe, was that at the time that they were being repaired by the Vulcan Iron Works? A. Well, I saw them on the trial after the repairs
281 had been carried out.

Q. Did you see them in the shop of the Vulcan Iron Works? A. No, sir.

Q. You were on board during the trial? A. I was on board during the trial.

Q. Had your advice been sought as to the changes that were to be made in them? A. Oh, yes.

Q. What changes were made in the repairs in 1920? A. The low pressure turbine was inspected, and found to be in good order, and just closed up again. The high pressure turbine was taken out
282 of the ship and brought into the shops of the Vulcan Iron Works, and the design of it changed. In other words, a dummy was fitted. The purpose of the dummy being to reduce the load or the pressure on the thrust pads of this Kingsberry thrust block.

Q. What else was done, if anything? A. Some changes to the lubricating piping.

Q. In what way, do you know? A. The pipes were made a little larger, and a new strainer was fitted.

Q. And that was all at your suggestion, was it,

as representing the Parson Company? A. No, not 283
the strainer, that was done by Mr. Ebsen's suggestion, that had not been brought to my notice.

Q. Now, had turbines of this same design—your company designed and fitted other ships in this country at that time? A. Yes, a very large number.

Q. How many that you know of? A. Of the same design as this, there were probably eighty or ninety under construction, and of other types of turbines of the Parson make, there were some hundreds at work.

Q. And those were in merchant ships, were they? A. No, no, not altogether, there were some 284
in merchant ships, but a very large number of them in the naval vessels.

Q. Now, was every suggestion that you made carried out in connection with these repairs? A. Yes, sir.

Q. Did you know of anything else that would have improved the system in any way? A. No, sir.

Q. You were asked to make it right, weren't you? A. I was asked to try and help just as far as I could.

Q. And you and Mr. Ebsen— A. I made my suggestions or my recommendations, you see, and 285
then Mr. Ebsen came and consulted with me while they were being carried out, and he kept me posted as to what he was doing and how it was being done.

Q. And were you also in conference with the owners' representative, Mr. Dixon, at Esplen Sons & McNaught? A. Well, they knew I was handling the thing, but practically my entire work was done, really I was guiding Mr. Ebsen, you see, or assisting him.

Q. Well, now, what do you say about the trial

286 trip. What did you do while the trip was on? A. I watched things and operated and saw how this modification that we had made to the high pressure turbine worked and found things satisfactory in every respect.

Q. Did you observe the lubrication? A. I did.

Q. Is that satisfactory? A. Everything is satisfactory about the lubrication.

Q. Did you observe anything else that should be changed? A. No, there was nothing that really needed altering.

Q. You thought that the work had been a suc-
287 cess? A. The work had undoubtedly been a success.

Q. Who was in charge of the operation of those turbines on that trial trip? A. The chief engineer.

Q. Donaldson? A. Donaldson, I believe his name was.

Q. Did you observe him? A. I did, and had quite a long talk with him.

Q. Had you had talks with him before this in regard to the repairs? A. No, sir.

Q. You had a talk with him on the trial trip? A. I had a talk with him on the trial trip.

Q. How long did that trial trip take? A. Prac-
288 tically a full day. We got away in the morning about nine o'clock, and I think we left the ship about five or six in the evening.

Q. Were you in the engine room most of the time? A. I was in the engine room practically all day.

Q. Was the chief engineer there with you, Donaldson? A. Oh, yes.

Q. And you discussed matters with him there? A. Absolutely. Talked over a great many points with him.

Q. What would you say as to his ability? A. Very capable man. 289

Q. As chief engineer? A. Very capable man.

Q. Did he understand turbines? A. He did.

Q. Of course, I don't like to have comparisons, but would you say he was as good as any turbine man you had had in a ship or less so?

Objected to.

Objection sustained.

Q. What appeared to be his qualifications? You said you thought he was capable? A. Well, just as far as I can recall, we just discussed the general operation of turbines and he knew quite well what he was doing, and he had previous turbine experience. 290

Q. Now, it appears in the chief engineer's testimony that at the time they were in Marseilles, one of the expansion pieces between the high pressure astern and the low pressure astern had cracked, and he put in a new expansion piece which later cracked. Will you state to the Court, please, the function of that expansion piece? A. Well, the purpose of those expansion pieces is to take up the changes in temperature that occur under working conditions of machinery subject to steam. Adjoining the copper expansion pieces are rigid cast iron pieces and unless some provision is made to allow the piping to give and go under changing temperature conditions, it would fracture, and and this copper piece is fitted for that purpose. 291

Q. When the turbines are going ahead, what is there in that pipe? Is it a vacuum or is it steam? A. Vacuum. The vacuum that is being

292 carried in the condenser, in other words, the full vacuum.

Q. And what is the effect of having a crack in that expansion piece? A. That the machinery looses vacuum. In other words, will lose power, it will not develop its full staff horse power.

Q. Now, the chief engineer says that when it cracked, when they were at Messina and that he was unable to get another piece, so he mended this. He says he mended it by putting on tape and putting red lead over it. In your opinion was that the proper way to mend that expansion piece? A. Yes, sir, very good.

293 Q. Was that sufficient? A. Yes, unless the crack developed into a fracture, of course, but it would stop a temporary leak.

Q. Now, he says that after he left Lisbon there was still a little leakage there, and that consequently, in order to stop any such leakage and make better time, he blanked off those two pieces, nozzles, that is cut out the expansion piece and put blanks in. Have you ever heard of that practice before? A. No, but that was quite good.

Q. Is that a proper thing to do? A. I should say yes.

294 Q. And why? A. Well, because it enables him to get more power out of steam. In other words, keep his ship going at the best possible speed without losing power and without burning up coal any more than he should.

Q. Now, will you describe, please, the system of lubricating installed in the *Willdomino* as you saw it on the trial trip? A. Well, of course, it is a forced lubrication system. The turbines and the gears receive oil under pressure, after it has passed through the bearings and the gear sprayers it drains back to a drain tank; from the

drain tank it is picked up to the pump; from the 295
pump up into a gravity tank, and then falls by gravity from this tank back into the turbine bearings and the gear bearing and goes on, so on, circulating around and around.

Q. How many oil pumps were in use in that lubricating system? A. Two.

Q. And what were their functions? A. Their function is to pass the oil from the drain tank up into the gravity tank.

Q. They don't pump it directly into the bearings at all, then? A. No, sir.

Q. Simply raise it from—— A. They raise it 296
from the drain tank, which is located in the lower part of the engine room up into the gravity tank which is located about 25 to 30 feet above the engines.

Q. Were those pumps both attached to the same steam line—they were worked by steam, I understand? A. Oh, yes, they were worked by steam.

Q. And both were doing the same job, were they? A. Oh, yes, both were doing the same work.

Q. What would happen if one broke down? Would the other one still continue? A. The other one would still carry on.

Q. Was one of them sufficient to carry all of the 297
oil up there that was needed, in your opinion? A. Not unless its speed was increased from the normal operation of the two pumps.

Q. Were there any automatic devices to show that the oil was getting low in the system? A. As far as I can recall, yes, there was a sight glass through which you could see the oil falling out of the gravity tank and there were different levels arranged.

298 Q. How fast do these turbines revolve? A. At full power, 3200 revolutions per minute.

Q. And how fast does the oil go through those turbines over these bearings? A. Oh, about five feet a second, I should say, if you wish it that way.

Q. And could you determine that in quantity—you mean five feet—— A. Oh, in other words, if you wish the quantity, the machinery would require about 150 gallons of oil per minute.

Q. And what is the effect then, of a failure of lubrication? A. Oh, you are going to have
299 trouble with the turbines.

Q. And what trouble? A. Bearing trouble.

Q. Where are the bearings on these turbines? A. Well, the purpose of the bearings is to carry up the rotor, of course, and they are at each end of the turbine casing.

Q. If those bearings wear out because of lubrication, what happens? A. They will fire at once, and the rotating blades will come in contact with the casing, and the casing blades will come in contact with the revolving rotor.

Q. Now, the chief engineer testified that he was called to the engine room by this alarm, that
300 he found the engineer had shut off the engines, that he found that one of the pumps was not working, and upon opening up the pump found this rod which had stripped, the valve spindle, which is our Exhibit 1. He says that he then found that the high pressure turbine had burned out the bearings and had gone aft, that the blades had become damaged, that in order to proceed at all, he then cut out the high pressure by connecting the low pressure turbine directly with the steam pipe on the low pressure turbine. Is that proper practice in your view? A. Ab-

solutely. There is provision made for that sort of thing. 301

Q. What is the effect of going ahead and using simply the low pressure turbine? A. Oh, it means an increase of steam consumption and a decreased speed. In other words, the machinery cannot develop its full power.

Q. Will you kindly explain that, please, to the Court, why that is so? A. Oh, because this low pressure turbine is only part of the engine, and to put the high pressure steam into this part, simply means that it cannot develop the power to get the full power. Of course, you have got to pass it through the high pressure turbine 302 which is specially designed to use high pressure steam.

Q. The high pressure turbine takes the steam at about what pressure, usually? A. 160 to 170 pounds on the average.

Q. And the low pressure turbine? A. It gets steam at about three pounds gauge.

Q. And the effect of putting in steam then at high pressure into the low pressure turbine is—— A. They simply—you have got first of all to expand that steam down from the boiler pressure to what will be the working pressure at that time turbine. 303

Q. Now, you had all these things in mind at the time you made your suggestion in January, 1920, the lubrication, and the fact that bearings did burn out, and the disasters that accompany the burning out of such bearings? A. Yes, we faced that from the time we started to design, but there is always a possibility of that sort of thing happening, and that is the reason why those direct steam connections to low pressure turbines are provided for.

304 Q. And have you made every suggestion that modern practice had developed at that time in order to avoid any such breakdown? A. Yes, sir.

Q. I forgot to ask you whether you examined the lubricating system on this trial trip and the work of the pumps. Were the pumps working properly? A. Yes, sir.

Q. The lubrication was working properly, was it? A. The lubrication was all in order.

Q. On that trial trip, I understand you also had the turbine expert of the Emergency Fleet Corporation present? A. Yes, he was there as a guest.

305 Q. And Lloyd's surveyor? A. Lloyd's surveyor.

RECESS.

AFTERNOON SESSION.

Mr. Sprague: May I have the privilege of calling a witness out of his order. He happens to be here just for a minute.

The Court: Yes.

306 LESLIE BRITTON DOWNS, called and sworn on behalf of the claimant, testified as follows:

Direct examination by Mr. Sprague:

Q. Mr. Downs, what is your occupation, please? A. Engineer in charge of direct action pumps.

The Court: What is the object of calling this witness out of turn?

Mr. Sprague: He is from the Worthington Pump Company just across the river, and wants to get back to his work.

I simply want to show that this valve spindle was all incased in—— 307

The Court: All right, if there is a real reason.

A. With the Worthington Pump Company.

Q. With the Worthington Pump Company? A. Worthington Pump Machinery Company.

Q. What experience have you had with Worthington pumps? A. About six years.

Q. Do you know the duplex oil pump which is used for the purpose of litfing oil from sump tanks in a turbine, that is the pump being manufactured by your firm? A. Yes. 308

Q. Are you acquainted with a piece which we have called a valve spindle which operates in that pump? A. Yes.

Q. And which, I believe, by your publication, is called a valve rod? A. Yes, sir.

Q. That is 9 on that pamphlet of yours, is it not? A. Yes.

Mr. Sprague: I ask to have this marked for identification.

(Marked Claimant's 2.)

309

Q. Attached to that valve rod is a nut which is marked 10 on this diagram, is it not, Claimant's Exhibit 2 for identification? A. No. 10 is right, yes, sir.

Q. Then this nut, No. 10, fits into a part called the slide valve, marked No. 80, does it not? A. Yes, sir, correct.

Q. Now, Mr. Downs, are those parts which we have mentioned, the nut and the slide valve

310 No. 80, and that section of the rod which contains the nut, incased or not? A. Incased always in that type of valve, the slide valve is always incased.

Q. Is that incased in a steam chest? A. Totally incased.

Q. Is there any way of opening that up while it is in operation? A. No.

Q. It is supposed to be opened up? A. No, it cannot be opened while the pump is operating.

Q. How often would you expect the marine engineer on a ship employing such a pump as that
311 to open it up if he had no trouble? A. He would never open it under ordinary conditions, because there is no reason for it.

Q. That is all.

Cross examination by Mr. Carpenter:

Q. What would make that part get out of order? A. I don't know.

Q. Lack of oil? A. Well, that might be. I could not say because it is probably an accident. I have never heard of a similar case.

Q. That is all.

312 *Re-direct examination by Mr. Sprague:*

Q. How long would you expect that that rod and nut would perform its function without there being any wear and tear sufficient to allow it to get out of place? A. Well, at that particular place there is really no wear and tear taking place. It should at least last as long as the other parts of the pump.

Q. That is all.

Re-cross examination by Mr. Carpenter: 313

Q. Any particular strain on that, is there? A. No.

Q. Is there any strain on it? A. Very little. There is a slight strain, but very little.

Q. There isn't enough strain on it to strip the nut off the threads, is there? A. No.

Q. That is all.

MR. ANDERSON, recalled.

314

Direct examination (continued) by Mr. Sprague:

Q. Mr. Anderson, is it the ordinary usage in an installation of these Parson turbines such as was on the *Willdomino* to put in a direct connection with low pressure turbine for use in the event the high pressure turbine gets out of gear? A. Yes, sir.

Q. In connection with auxiliary machinery, such as pumps, speaking for the moment of these pumps that circulate the oil, is it the ordinary and proper usage for the marine engineer, ship's engineer to open them up at stated times, whether 315
or not he has had any trouble? A. No, sir.

Q. What is the custom in regard to that? A. For the engineer coming in after a trip in his report to point out that a pump or any part of the installation has not worked properly, and then the shore people decide just what they will do, and in most cases, of course, the shore man says, "Well, we must have a look at that part, and just see what is wrong with it." But it is

316 not the custom just to open everything, that is, every auxiliary in the engine room.

Q. If you did open all auxiliaries at the end of each voyage or whenever anything else was done to the ship, what would be the effect as far as time is concerned? A. It would take up a great deal of time, and expense, and it is questionable whether every part of it would be back again to work as well as it was doing when the ship came into port.

Q. When you saw these lubricating pumps working on the trial trip of January, 1920—

317 A. Yes, sir.

Q. Were they working properly then? A. They were working efficiently.

Q. What is the reputation of the Worthington pump for work of this character? A. Oh, very high grade.

Q. There is no question about those pumps being of the proper type, was there? A. No, sir. I would like to add one point there, that it was during war time when equipment like that was ordered, and the duplex pumps and horizontals are located just as low as they can be. In other words, they are not always in the best position

318 to take care of themselves.

Q. The other type of pump would be the simplex pump? A. Would be the vertical simplex.

Q. Were those available at the time? A. I think it would have been difficult to obtain such pumps, for the simple reason that the Navy people had been building a very large number of destroyers in which that type of pump is exclusively used.

Cross examination by Mr. Carpenter: 319

Q. You spoke about the reservoir above the engine where the oil is kept and runs down by gravity? A. Yes, sir.

Q. There is an auxiliary storage in addition to that, isn't there? A. In most ships. I couldn't answer the question directly as to this ship. It probably was there.

Q. That is designed to furnish oil, if the oil in the main tank has run out and the alarm is sounded? A. No, sir, it is there to simply add oil to the system when it is needed. There is no automatic connection or anything like that. It is 320 simply a control valve which would have to be worked by a man.

Q. In other words, then, as soon as the alarm goes off you want to turn the oil from the auxiliary into the other tank and let it flow down? A. No, sir, shut down your machinery and find out what is wrong.

Q. Then tell us, what the purpose of that auxiliary supply is? A. It is a reservoir. You might as well carry a barrel of oil on deck, or simply an extra lot of oil, because you are always, in an installation at sea, going to lose a certain amount 321 of oil. There is water in oil that will evaporate, and you will have to go on making up the required quantity or what would be the working quantity in the system.

Q. I am asking you if there is not a connection between the auxiliary supply and the main supply that runs by gravity to the engine? Isn't there a connection between the two? A. There is a connection to the system, probably to the drain tank or the sump tank.

Q. That is all.

MALCOM DICKSON, called and sworn on behalf
322 of the claimant, testified as follows:

Direct examination by Mr. Sprague:

Q. Mr. Dickson, what is your occupation, your profession? A. Port Engineer, sir.

Q. For what company? A. Atlantic Fruit Company.

Q. In New York City? A. New York City.

Q. What experience have you had as marine engineer? A. 17 years' actual sailing.

Q. In what capacity? A. Fourth up to chief.

Q. What experience did you have as chief en-
323 gineer? A. Eleven years.

Q. What kind of engine? A. Reciprocating chiefly.

Q. Did you have any turbines at all? A. Auxiliaries only.

Q. What was your occupation in December, 1919, and January, 1920? A. I was assistant in Esplen Sons & McNaught's office.

Q. New York City? A. New York City.

Q. In that office did you have anything to do with the *Willdomino*? A. Yes, sir.

Q. State what you had to do? A. I looked at
324 the damage when the ship came in and——

The Court: When was that?

The Witness: That was in December, 1919.

The Court: Go ahead.

A. I looked over the damage when she came in and recommended the necessary repairs.

Q. Where were those repairs carried out? A. Vulcan Iron Works, Jersey City.

Q. Were your recommendations all complied with? A. They were, sir. 325

Q. Did you supervise the work while it was being done? A. I did, sir.

Q. How often were you at the shops while it was being done? A. Not less than three times a week.

Q. How long did the job continue? A. It continued until I was removed by Mr. Coleman, that was about the end of December.

Q. By Mr. Coleman? A. Yes, sir.

Q. Did Mr. Coleman join Esplen Sons & McNaught? A. No, sir, he became Port Engineer for the Williams Steamship Company. 326

Q. Did you continue after he became port engineer or not? A. No, sir.

Q. Had the tests been run on these turbines at the time—— A. A short test was run under my supervision. The dock trial was run without my being there.

Q. What was the result of the shop test? A. Very satisfactory.

Q. What work was done during those repairs? A. The high pressure rotor was taken out of the vessel, taken to the shops and replated entirely, and the casing was also replated, a dummy was put on so as to take the excessive pressure that was on the Kingsbury thrust which was supposed to be the cause of the first breakdown, and reduced pressure on that thrust by about 60 per cent. of what it originally had been. The oiling system to it, the piping was enlarged from the strainers to the oiling device where the oil started from the motor and the gearing and to that pipe there had been new strainers put in about say three times the capacity of the strainers that were 327

328 originally there to the Kingsbury thrust. After it had been remetaled—there was a three-quarter pipe there and a one and a half was put in. New sight feed attached, so that the oil could be seen at all times going to the thrust.

Q. Were the Kingsbury thrust pads the same as the chief engineer calls the thrust pads? A. Yes, sir, that is the same.

Q. Did you open up the pumps, the two oil pumps that control this feed? A. The two oil pumps were opened by the ship's engineers for the purpose of adjusting the slide valve, and I believe it would be to make the pumps work
329 better than they had been doing coming out.

Q. Did you see them opened up? A. I saw them opened up.

Q. What was the condition of the valves? A. They were all right.

Q. Of the valve spindle at that time? A. The spindles were all right as I saw them then.

Q. They were in perfect condition, were they, at that time? A. Perfect condition.

Q. I suppose these pumps were not run when the ship test took place at the shop? A. No, sir, these pumps were not at the shop test at all.

330 Q. I believe you stated you were not on the trial? A. I was not.

Q. Was everything done in your opinion that modern devices had demonstrated were correct at that time to make this system good and proper? A. Yes, sir.

Mr. Carpenter: No cross examination. We are not disputing this vessel was all right in January, 1920. This trouble was long after that.

PAUL A. DWYER, called and sworn on behalf of the claimant, testified as follows: 331

Direct examination by Mr. Sprague:

Mr. Sprague: In connection with the testimony of the last witness, your Honor, I desire to offer certificate of Lloyd's Register of shipping covering these turbines, January 20, 1920, to which my opponent consents.

(Received and marked Exhibit C-3.)

Mr. Carpenter: I don't see what bearing it has on this case. That was in January, 1920? 332

The Court: I will admit it.

Mr. Sprague: I also understand that you are willing to stipulate that these surveyors, if called, would testify that they made this examination and found the condition to be as stated.

Mr. Carpenter: Yes, at that time.

Q. Mr. Dwyer, what is your occupation? A. I am the Port Manager for the Williams Steamship Company. 333

Q. What are your duties in that department? A. In charge of the loading and discharging of the vessels.

Q. What position did you have in August, 1920? A. Just about the same position.

Q. Was that company then the agent for the *Willdomino* at New York? A. They were, sir.

Q. Now, did you see the *Willdomino* when she first came into New York after having this damage? A. I did.

334 Q. Where did you first see her? A. Saw her at Pier C, Jersey City.

Q. What was her cargo, Mr. Dwyer? A. Cargo consisted of cork wood, sardines, lemons and this citrate of lime, I believe those were the principal items.

Q. There was also liquid citronade, was there not, in casks? A. I believe there was.

Q. What did you first do to the vessel when she came in, did she come under your supervision, then, as far as cargo is concerned? A. Yes, sir, we took her at the Jersey City pier and com-

335 menced discharging.

Q. What did you discharge there? A. We discharged lemons and sardines at Jersey City, until such time as the pier was filled up.

Q. And the next day? A. Removed the vessel up to an open wharf on the North River, where we discharged these big bulky bales of cork. No room at Jersey City for them.

Q. Were these lemons or sardines or anything that you discharged up to this time, damaged by the water? A. No, sir, not that I know of.

Q. That was not damaged cargo, was it? A. No, sir.

336 Q. What was done after you discharged the cork? Did that complete the discharge of the undamaged cargo? A. Yes, sir.

Q. And the next day? A. The vessel was then taken back to the dry dock.

Q. Tietjen & Lang? A. Yes, sir.

Q. Then the survey was held, I assume? A. Yes, sir, the survey was held.

Q. Now, did you consider the question of discharging this citrate of lime, which was in No. 1 hold and covered by water, as I understand it,

prior to the time that it actually was discharged? 337
A. Yes, sir, the situation was considered.

Q. Well, what did you do? A. It was considered and discussed between all of us, these experts that have been referred to, these surveyors that have been referred to, the stevedore, and the decision was reached that it was impossible and impracticable, would have been folly to attempt it with 19 feet of water in the hold of the vessel, covering this cargo.

Q. You discussed it with the stevedore, you say? A. Yes, sir.

Q. What would it have required to have taken that cargo out with the water in that condition? 338
A. Might have attempted to go down there with divers or something of that kind.

Q. Assuming these casks were as large as they say—500 to 1500 pounds each? A. Yes, sir.

Q. Soaked with water. Was it a practicable thing to expect to get divers to do anything like that? A. It was not. Many of the casks went to pieces even afterwards when we got at them and discharged them when the vessel had been fixed.

Q. Now, did you consider the discharging of this cargo when she was in dry dock before the 339
plates were put on? A. Yes, sir.

Q. What conclusion did you come to? A. We looked the situation over at the dry dock. It appeared there to be also impossible. The dry docks are ranged along one after the other, seven or eight or nine, I think at that particular yard, each one close to each other, no slip room between them, and absolutely no way that we could see of getting it out.

Q. The ship was put in bow on, I suppose? A. The vessel was bow on to the land, which put

340 the damaged end of the vessel close to the repair shops of the yard.

Q. What would have been necessary in order to have taken that cargo out in floating dry dock? A. I never heard of such a thing done or could imagine how it could be done unless that the dry dock, some sort of construction work had been placed in the dry dock, the big runway, from the top of the ship, I cannot imagine that it could ever be attempted.

Q. Who finally discharged the cargo? A. The Howard Stevedoring Company.

341 Q. Was that discharged immediately, as soon as these plates were put on the ship? A. Immediately the vessel was put back in the water, it was discharged.

Q. Now, did anybody tell you, or did the consignor inform you of the properties of this citrate of lime? A. No, sir, I never heard of them.

Q. Did they inform you of the great value of citrate of lime? A. No, sir, I never heard of the value.

Q. That is all.

Cross examination by Mr. Carpenter:

342

Q. Now Mr. Dwyer, whereabouts do you live? A. Brooklyn, sir.

Q. And do you mind telling us how old you are? A. 28.

Q. How long have you been in the shipping business? A. About ten years, sir.

Q. Continuously? A. Yes, sir.

Q. Do you mean that? A. Yes, sir.

Q. Well, where did you start in? A. I started in as a stenographer for a small steamship company.

Q. Stenographer for what steamship company? 343
A. Tracy Steamship Company.

Q. How long were you a stenographer there? A. I don't recollect now, sir, how long.

Q. How old were you when you started in with Tracy? A. Ten years back.

Q. 18? A. Yes, sir.

Q. How long did you stay with Tracy? A. I don't recollect.

Q. Well, give us some idea? A. Possibly three years, it might be about that.

Q. Three years? A. Yes, sir.

Q. Do you know the date you left them? A. No, sir, I don't, not offhand. 344

Q. Were you stenographer all that time? A. No, sir.

Q. Well, what else did you do besides stenography? A. I was stenographer there for just a few months. After that I was on outside work on the vessels, similar to what I am describing now.

Q. Well, what did you do? A. Outside generally, handling, loading and discharging of vessels.

Q. Now then, you left them in 1916? A. About that.

Q. Who did you go with after that? A. I went 345
with a concern named Harrison.

Q. Talk up. We cannot hear you. A. Harrison & Company.

Q. What did you do for them? A. The same work.

Q. What was their business? A. Steamship business.

Q. Did they run a line of their own? A. Yes, sir.

316 Q. What line? A. Chartered vessels, tramp service.

Q. How many vessels did they have? A. They had anywhere from three to eight steamers under charter.

Q. Just chartered the vessels, did they? A. Chartered vessels, yes, sir.

Q. How long were you with them? A. I think about the same length of time.

Q. About three years more? A. Yes, sir.

Q. That is up until 1919? A. No, I don't say what date it is up until.

347 Q. Well, after you left Harrison & Company, what did you do? A. I was in the war.

Q. How long were you in the war? A. A little over a year.

Q. What branch? A. Machine gun service.

Q. When you came back from the war, who did you go with? A. I went to the Williams Steamship Company.

Q. In what capacity? A. In the same capacity, outside work, loading and discharging of vessels.

Q. When was it that you came back from the service or went in to work for Williams? A. Just about four years ago this time.

348 Q. That is 1919, January and February? A. Something like that; yes, sir.

Q. And you were in service how long? A. About a year, a little over a year.

Q. Did you ever before have any experience with a vessel that had been stove in on a voyage and injured the cargo? A. No, sir.

Q. This was your first experience of this kind? A. Yes, sir.

Q. Ever work in a shipyard? A. No, sir.

Q. Ever have anything to do with repairing a ship or vessel of any kind? A. I have been

about the shipyards for each of the other companies at various times when repairs were being made, along with the surveyors. 349

Q. You don't pretend to be an expert in the repairing of ships, do you? A. I do not, sir.

Q. Did you ever have charge of having a vessel repaired? A. No, sir; not solely in charge.

Q. Now, when this particular vessel came in from Halifax damaged, you were the first one from your company to see her, were you? A. No, sir.

Q. Who was the first man? A. Captain Gilboy went off and met the vessel in the harbor.

Q. You did not go down the bay on a tug to meet her? A. No, sir. 350

Q. Gilboy did? A. Yes, sir.

Q. Gilboy was your superior, wasn't he? A. He was not, sir.

Q. He was not? A. No, sir.

Q. Gilboy was an experienced mariner, wasn't he? A. Yes, sir.

Q. Had been to sea? A. Yes, sir.

Q. Bit older than you? A. I beg your pardon?

Q. A good bit older than you? A. He was; Yes, sir.

Q. He was the one of the Williams Steamship Line sent to Halifax as soon as they heard she was in trouble? A. Yes, sir; Captain Gilboy went to Halifax. 351

Q. You didn't go? A. No, sir.

Q. Is he here today? A. I believe he is in Rotterdam.

Q. In Holland? A. Yes, sir; the last I heard of him.

Q. The last you heard of him he was in Holland? A. Yes, sir.

Q. When was that? A. Oh, I think a year or

352 so ago he got a position with the United States Shipping Board, assigned to the Port of Rotterdam.

Q. About how old a man was he? A. Gilboy was, I should say, forty or a little less.

Q. Now then, did you or did Gilboy give the orders that the lemons should be discharged from this *Willdomino* first? A. I don't recollect that anyone gave any order to discharge the lemons first.

Q. Well, that was done, wasn't it? A. The lemons and the other cargo, yes, sir.

353 Q. The lemons and sardines were discharged first? A. Yes, sir.

Q. The unloading of both took until about what time in August? A. I don't recollect.

Q. About the 19th? A. I don't recollect; probably took anywhere from four, five to six days to get that amount of cargo out.

Q. And who was the stevedore that unloaded the lemons and the sardines? A. Howard Stevedoring Company.

Q. All of the lemons and the sardines were unloaded at Pier C, Jersey City? A. Yes, sir.

Q. And then the vessel went over to 139th
354 Street, New York? A. 129th, I believe.

Q. How long did she lay there at that open pier? A. I don't recollect.

Q. All you did there was take off cork, wasn't it? A. Corkwood.

Q. When did you take out the other cargo of citronate? A. I don't remember or recollect whether it was taken off before she left for 129th Street or when.

Q. What kind of pier is that at 129th Street? A. It is an open pier.

Q. And what is it usually used by vessels for?

A. It is engaged by vessels, commercial vessels 355
for discharging cargoes that can lay out under the weather without any damage.

Q. That is just a garbage dump, isn't it? A. No, sir; it is not; it is an open air pier used for commercial purposes every day in the week.

Q. You don't know how long the vessel lay there? A. No, sir; I don't know offhand.

Q. As far as you know, all the vessel did there was unload these bales of cork? A. That's all I remember.

Q. And who unloaded those? A. The same stevedore.

Q. Howard & Company? A. As far as I recol- 356
lect, we only had the one stevedore.

Q. Are you sure that the crew of the vessel did not unload it? A. No, sir; the crew of the vessel did not.

Q. Did you take any casks of citrate of lime out at that time? A. I don't recollect; I don't believe we did.

Q. How much of the time were you on board this vessel while she was being unloaded? A. I would visit her once a day or twice a day, whatever time I had, usually once in the morning and if possible again in the afternoon.

Q. Why did you visit it? A. That was my 357
duty, to visit her, to see that things were working along, keep in touch with the situation at all times.

Q. Well, I mean, what did you have to do with it? A. We did not have to do anything about it.

Q. Are you the one that gave the orders as to what should be unloaded first? A. No, sir.

Q. Gilboy was the one? A. Wasn't any orders given that I know as to what should be unloaded first, unless discharge the merchandise.

358 Q. Who is the man that engaged Howard & Company to unload the vessel? A. Howard Stevedore was our stevedore.

Q. Howard Stevedore. I know. Who gave the orders to this vessel? A. I don't recollect who actually gave the orders.

Q. Who discussed the rate with him? A. I don't recollect.

Q. You didn't? A. I don't recollect it, sir.

Q. Well, you certainly recollect whether you discussed it with him or whether you didn't? A. Well, I cannot recollect whether I did or not.

359 Q. Did you at any time find out what the rate would be from Howard for unloading cargo out of No. 1 hold? A. Find out what the rate would be?

Q. Yes. A. There could be no rate for it.

Q. What do you mean by that? A. There could be no rate for stevedoring cargo submerged.

Q. Did you ever in your life have to engage a stevedore or anybody else to unload cargo that was submerged? A. No, sir; I did not.

Q. You never had such a situation yourself before? A. No, sir: I did not.

Q. You did not know what to do? A. Yes,
360 sir; we know what to do; we discussed what we would do.

Q. You discussed what you would do? A. Yes, sir.

Q. And you decided to do nothing? A. We decided that the thing to do was to take the material out just as soon as it was possible.

Q. What material? A. Citrate of lime.

Q. Then why didn't you take it out before you took out the lemons? A. It wasn't possible.

Q. Who had charge of the work in the harbor of the Williams Steamship Company while Cap-

tain Gilboy was at Halifax? A. I would have had, had there been any other vessels here. 361

Q. Did Captain Gilboy come back from Halifax on the *Willdomino*? A. No, sir.

Q. By train? A. I believe by train.

Q. Did he wire you before he came down that he was coming? A. I don't recollect.

Q. Before he arrived did you make any effort to get a drydock on which to put the *Willdomino*? A. I had nothing to do with drydocking arrangements.

Q. If you didn't who did? A. It was up to surveyors or whoever we might engage to handle the situation. 362

Q. You had some responsibility because of the cargo, didn't you? A. Cargo; yes, sir.

Q. Well, knowing that part of the cargo was in the hold No. 1, that was damaged, full of water, what effort did you make to get a dry dock to put the vessel on? A. I don't know that I made any effort personally.

Q. You didn't make any, did you? A. Not I personally.

Q. Did you give directions to anybody to make arrangements for dry dock? A. Personally, no.

Q. Did you know of anyone else that did? A. The usual arrangements were being made in our office. 363

Q. I want to know what was done in this case. A. I don't recollect what was done in this case.

Q. This was an unusual thing to have a cargo watersoaked with bow stove in on the vessel? A. I don't believe so.

Q. It wasn't? A. Many vessels have had their bottoms torn out before.

Q. In your line, the Williams Line? A. The first occasion we had of it, yes.

364 Q. I want to know what you did in trying to get the cargo out of No. 1 hold, if anything? A. We discussed the situation as stated before with the various surveyors and experts that were dealing with the job, and the conclusion reached was that it was impossible and impracticable to take the merchandise out of lower No. 1 hold until such time as the vessel had been repaired, which was done.

Q. Now, having arrived at that conclusion, what did you do? A. That is what we did, sir.

Q. You did nothing? A. That is what we did.

Q. You arrived at the conclusion? A. Yes.

365 Q. And then you didn't do anything? A. We arrived at the conclusion and the balance of the merchandise was discharged from the vessel; she was dry docked, repaired and then we immediately discharged the citrate of lime.

Q. How much of the time were you on the vessel when she was on dry dock being repaired? A. I should say I visited the vessel once every day.

Q. Now, I wish you would tell us when it was that you first saw a cask of citrate of lime out of that hold? A. Out of the vessel?

366 Q. Out of the hold? A. Out of the hold on to the lighters?

Q. On land or on the dock—anywhere. Where you first saw a cask of citrate of lime. A. When we started to discharge it, I presume.

Q. Well, there were casks out on deck before that, weren't there? A. I don't know.

Q. Did you see casks out on deck while they were repairing the vessel on dry dock? A. I don't remember it, sir.

Q. They moved part of that cargo in order to make the repairs to the vessel, didn't they? The

cargo of No. 1 hold, I mean? A. I believe they 367
had to remove some of the mess on top of the tank top so that they could work there in the damaged parts. What they did with it I don't know. I suppose they scrapped it aside.

Q. Well, they had to get the casks up in order to get at the mess, as you call it, down at the bottom? A. I don't believe the entire bottom was covered with casks.

Q. Why, there were over 400 casks there, weren't there? A. I don't recollect the figures.

Q. 500 casks; do you know how they were piled up in that hold? A. No, sir.

Q. Did you look at them at all? A. I looked 368
at some of them, yes.

Q. Were you ever down in No. 1 hold before she was unloaded? A. Just at the time she started to unload.

Q. When she started to unload, were you ever in that hold while the vessel was on dry dock? A. No, sir.

Q. Were you ever in the hold while the vessel was at 129th Street? A. No, sir.

Q. Or while she was in Jersey City? A. No, sir.

Q. Did you make any inspection of it at all 369
until after this stuff was taken out months afterwards? A. I looked at it from the dock, standing. The entire hold was full of water, almost to the 'tween decks.

Q. You did not look at it while it was in dry dock to see that the water was all out? A. No, sir; I don't believe I saw it there.

Q. When the vessel was on dry dock all the water in the hold had run out? A. Yes, sir.

Q. Did you observe that the casks had swelled?

370 A. I observed that when they were discharged on to the lighter that they had.

Q. Do you know how many casks were broken when you finally unloaded her? A. Offhand I could not say the exact number, no, sir.

Q. Did you take a memorandum of it? A. If we did, it is in our records; I don't recollect at the time now.

Q. Another thing: Did you send any cables to the *Willdomino* while she was on her voyage? A. Personally?

Q. Yes. A. No, sir.

371 Q. Did you code or decode any? A. If messages came in or were sent I may have assisted with the coding or decoding.

Q. Have you got the cables that passed between the vessel and your office when the vessel was at Ponto Delgada? A. No doubt they are in our files.

Q. Are they there? A. I could not say that, sir; I have not got them.

Q. Are all the records of the cables of your office here in court today? A. Our attorney will tell you.

372 Mr. Sprague: I haven't them. The office says they are over here.

Q. Have you looked at the cables recently? A. No, sir.

Q. Who was it that made the decision that you go ahead and unload the cork and the lemons and the other cargo, including sardines, before you would unload the citrate of lime? A. I don't recollect who it was.

Q. Did you get your orders from Mr. Williams in that regard? A. I don't remember whether

we did or not or whether I gave the orders to go ahead and discharge. 373

Q. You got your instructions from somebody else, did you not? A. I possibly might.

Q. Well, in this particular case, I want to know if you are the man that gave the orders or if you got orders from somebody else. A. I don't recollect if I got the orders to discharge.

Q. You did not have authority to pass on matters like that? A. I had authority to start discharging the ship.

Q. But did you have authority to decide whether the discharge should begin before the vessel was put in dry dock or not? A. The discharge—to discharge any of the merchandise, you mean? 374

Q. Yes. A. You would hardly put the vessel in dry dock with her complete cargo in her.

Q. You are not answering my question at all. A. I don't understand it, perhaps.

Q. (Repeated.) A. Discharging of what?

Q. Any of the cargo. A. Yes, sir; I had the authority to instruct the vessel to go ahead and discharge.

Q. And did you get your orders to do that from anybody else or did you assume that responsibility yourself? A. I don't recollect whether I got any orders at that time or not. 375

Q. Did you make any inquiries from anybody about the properties of citrate of lime? A. No, sir.

Q. Did you ask anybody about the value of citrate of lime? A. No, sir.

Q. That was the first notice—when was the first notice, if you know, that your company gave the Citro Chemical Company that their citrate of lime had been damaged? A. I don't know, sir.

376 Q. When was the first word that your company gave, if you know, to Pfizer & Company that their cargo was damaged? A. I don't know that either, sir.

Q. When was the first time that you knew that the citrate of lime had been damaged? A. I didn't know it. I knew that it had been covered by water.

Q. When did you first learn that? A. When the vessel came into New York with 19 feet of water in her hold.

Q. Now, do you know that there was 19 feet of water in the hold? A. Well, I don't know
377 that it was exactly 19 feet, but it was very near to the 'tween decks and that would be the depth from the tank top to the 'tween decks about 19 feet, and that compartment was practically full.

Q. Did you get any messages from Gilboy or the captain from Halifax as to what cargo was in the hold that was damaged and full of water? A. No, sir.

Q. Did you inquire? A. I don't believe I did.

Q. I wish you would explain why it is, if you were in command for the Williams Steamship Company of this situation regarding the damage
378 to *Willdomino* and there was damaged citrate of lime in the hold, with water in it, why is it that you did not notify the libellants here that their cargo was damaged and try to find out something regarding its value and how it could be saved? A. I don't know that we were called upon under our bill of lading to do that. I did not realize that we were called on to notify them.

Q. Did you collect the freight? A. No, sir; I don't believe we did.

Q. On either shipment? A. I think the freight

was paid on the smaller shipments, if I ain't 379
mistaken; not on the larger one.

Q. Didn't you make sure to collect the freight on one of these shipments before you told the consignee of the damage? A. No, sir; I recollect no such thing.

Q. Whose signature is this on Exhibit L-6, J. S. Rouss? A. That is a young man that works in our freight department.

Q. He worked under you? A. Yes.

Q. You are his boss, are you ? A. No, sir.

Q. Were at that time? A. No, sir.

Q. Did he work under you? A. He worked 380
under me in that department.

Q. On the 14th of August you sent a bill under that date to the Citro Chemical Company, Maywood, New Jersey, for $1,350.93, freight on 168 casks of citrate of lime from Messina, bill of lading dated June 10th, didn't you? A. Personally, you mean?

Q. Your company. A. Yes, sir; that's our billhead.

Q. Had any word been given to the Citro Chemical Company up to that time that this cargo was damaged? A. I could not say, sir.

Q. You knew it had been damaged at that 381
time, didn't you? A. I knew at the time the vessel arrived in New York with the water in the hold.

Q. You knew that citrate was in that hold? A. Yes, sir.

Q. Did you have a plan of the stowage of the cargo in the vessel before she reached New York? A. I did not, sir.

Q. When did you first see it? A. I never saw it.

382 Q. Yet you were the man in charge at New York? A. Yes, sir.

Q. Did you ask the captain to let you see it? A. Yes, sir.

Q. He would not let you see it? A. I don't believe he had a plan, only some sketch that they had made up themselves; he had no regular cargo plan.

Q. You never saw one? A. No, sir.

Q. Although you asked for it? A. Yes, sir.

Q. Now, you spoke about some conferences when it was decided that you would not unload
383 the citrate of lime. Who were present at those conferences? A. Mr. Williams, the stevedore, as I recollect.

Q. The stevedore as you recollect, what was his name? A. Captain Howard.

Q. What is his first name? A. I don't know his first name.

Q. Who else, yourself? A. Myself, Gilboy, and then there were several surveyors, but I don't recollect their names, don't remember them at this time.

Q. What was the value of the detention per day of the *Willdomino*? A. I couldn't say.

384

Objected to.

The Court: He says he could not say.

Q. Do you know what was the value of the lemons on this cargo?

Same objection.

Objection sustained.

Q. You said you never saw the stowage plan at all? A. No, sir.

Q. Did you ever see the manifest? A. I saw the manifest. 385

Q. Didn't that accompany the manifest? A. No, sir.

Q. Did the manifest appear before the vessel or go with it? A. I don't recollect whether it came before or whether it came with it.

Q. I think that is all.

Re-direct examination by Mr. Sprague:

Q. Mr. Dwyer, would you please look at this and tell me whether that is the general arrangement of the plan of the *Willdomino*? A. Yes, sir. 386

Mr. Sprague: I offer it in evidence.

(Received and marked Claimant's Exhibit 3.)

The Court: How many tons?

The Witness: 8,800 total dead weight.

The Court: What is the difference between dead weight and live weight.

The Witness: That includes coal, water, stores and the like of that, and the amount of cargo she carries. 387

FRANCIS A. MARTIN, called as a witness on behalf of the claimant, being duly sworn, testified as follows:

Direct examination by Mr. Sprague:

Q. Mr. Martin, where do you reside? A. Plainfield, New Jersey.

388 Q. What is your business? A. Marine consulting engineer.

Q. How long have you been engaged in that business? A. Ten years.

Q. And in what name? A. Frank S. Martin & Sons.

Q. In New York City? A. Yes, sir.

Mr. Carpenter: We will admit his qualifications.

Q. What did you have to do with the *Willdomino* after she came into New York with water
389 in her forepeak and No. 1 hold in August, 1920? A. We acted as owners' surveyor.

Q. Now, when did you begin to act in that capacity? A. When she was put on dry dock at Tietjen & Lang's.

Q. Did you have anything to do with it before that time? A. No, sir; I may have had some talks with Mr. Williams about it but I don't think I had been aboard ship before that time.

Q. State just what you did at that time? A. We surveyed the vessel or I surveyed the vessel together with the underwriters' surveyors. We
390 prepared specifications and obtained tenders for effecting repairs.

Q. That was on the 25th of August, was it not? A. Yes, sir.

Q. State what you found the damage to be at the time? A. A damage in the way of the forepeak and No. 1 hold, four foot peak, in the forepeak was practically torn away and the forward end of the tank top in No. 1 hold together with the forepeak bulkhead was torn adrift and broken.

Q. How far back did that extend? A. In No.

1 hold it extended back about 10 or 15 feet from 391
forepeak bulkhead.

Q. Enough to account for the amount of water that you found in that hold? A. Yes, sir.

Q. Did you make a survey of the turbines at the time? A. Made a survey of the turbines also.

Q. What condition did you find them in? A. We found the high pressure turbine damaged and also the low; the blades and also the thrusts.

Q. On what turbines had she been proceeding? A. She had been proceeding on the low pressure.

Q. You found the high pressure cut off? A. 392
The high pressure was cut off; yes, sir.

Q. Thrust bearings worn out? A. The metal in the thrust bearings was fused.

Q. Now, what was your next step in your proceeding after having held this survey? A. Why, then we prepared specifications and obtained tenders affecting both the damages and the repairs of damage to the hull and also the machinery damage.

Q. Did you do that yourself personally? A. Yes, sir.

Q. And as a result of that the hull damage was given to Tietjen & Lang to repair? A. The con- 393
tract was awarded to Tietjen & Lang, yes, sir.

Q. Was that done expeditiously—was any time lost at all? A. Not that I recollect; no, sir. It was done as fast as possible.

Q. Mr. Coleman has testified that she went into the dry dock again on the 28th for the contractors to cut out various work that was necessary. A. That is when the contract was awarded.

Q. Your contract was awarded within two or three days after the first survey, is that correct? A. Yes, sir.

394 Q. Now, when you had her in dry dock you found the cargo in lower No. 1 hold, didn't you? A. Yes, there was cargo in lower No. 1 hold.

Q. Was it feasible in your opinion to have discharged that cargo in the dry dock? A. No, sir.

Q. Did you ever hear of cask cargo being discharged in the dry dock? A. Not to my recollection, no, sir.

Q. Was it feasible to have put on temporary repairs on this vessel, then dropped her into the water and taken out the cargo? A. That would have been a very expensive operation. I don't think that was ever spoken of at the time, mak-
395 ing any temporary repairs.

Q. Do you think it was commercially feasible to do that? A. I don't think so. I thought the cargo was ruined and there could not have been any more damage to it.

Q. Did you hear anybody of any different opinion at that time? A. No, I don't recollect, no, sir.

Q. Now, when the contract had been let and she had been on dry dock the second time on the 28th of August and then later came back for the repairs, was that work expeditiously done, in
396 your opinion? A. You mean the work that was done by Tietjen & Lang? Yes, sir; it was.

Q. Was there any delay? A. None that I know of, no, sir.

Q. Did you keep track of the job yourself? A. We did. I think there was a little delay they had in receiving the stem. I don't think that held her up any, though.

Q. But would you say that this work was done as expeditiously as it could be or not? A. I would say it was done expeditiously.

Q. Now, while you were waiting for the plates

to be fabricated or prepared, or whatever name you give to that, this vessel was in the wet dock alongside, wasn't it, or nearby? A. No, when they were repairing the stem she was in dry dock. 397

Q. But before she went into the dry dock for repairs, I mean, after you surveyed her, before her, before she went in to have the plates put on? A. Yes, then I believe she was taken off the dock and tied in to the wharf at Tietjen & Lang's.

Q. Have you ever had any experience with unloading cargo which is covered with water? A. No, I have not. 398

Q. Have you ever heard of heavy casks, 500 to 1,500 pounds in weight, being discharged, when they are covered with water? A. No, I have not.

Q. That is all.

Cross examination by Mr. Carpenter:

Q. Did you ever hear of a ship having a hole in her being made tight so that the water could be taken out and the cargo taken out after the water? A. Yes, I have.

Q. Nothing new about that method of unloading a wet cargo, is there? A. That is usually done to save the cargo that is not already damaged. 399

Q. Sure. Just tell the court how they use that plan to save the damaged cargo? A. What plan?

Q. The one you are just talking about. A. You mean to make temporary repairs?

Q. Yes, what do they do? A. Well, they cut away all the twisted iron work and probably plank the holes over, caulk it.

400 Q. How long would it have taken to make that sort of temporary repairs so that the boat could have been put back in the water and the cargo taken out? A. I don't know. That wasn't gone into.

Q. Well, that is the customary and usual way of unloading a damaged cargo under such circumstances? A. Not always. That is to save cargo that has not been damaged.

Q. Yes, to save cargo—Well, I suppose it is the same thing, isn't it? A. I wouldn't say in this, no. The cargo, I went over it two or three times, looked like a lot of muck to me; wouldn't
401 say there was anything left of it.

Q. You didn't know anything about it? A. I worked over it a few times.

Q. You didn't know what the stuff was? A. No, I didn't.

Q. Did you know what was inside the barrels? A. No, I did not.

Q. You did not know whether there was 100 per cent. of citrate of lime in there or whether 5 per cent. had dissolved or how much had dissolved? A. What I could see of the cargo, it looked all broken up to me.

402 Q. How many casks did you see there? A. I did not count any casks. I walked over them.

Q. Were you ever down in the No. 1 hold? A. Oh, yes.

Q. How many times? A. I should say six or seven.

Q. Every time while the vessel was in dry dock or while she was sometimes out at the wharf? A. Couldn't go down when she was out in the wharf, because it was full of the water.

Q. Well, the only times you were down was

when she was on dry dock? A. When we made 403
the survey and then while she was undergoing repairs.

Q. Now, how many days of time in dry dock would it have taken to have made temporary repairs by building her over with wood? A. I don't know; I didn't go into that feature.

Q. Not over three days, would it? A. Maybe three or four days.

Q. She could have been made tight enough then and caulked, so that when put back into the water she could have been put alongside the pier and the cargo taken out, isn't that right? A. I believe so; yes, sir. 404

Q. That is the usual way for making temporary repairs to get a cargo out of a hold under such circumstances, is it not? A. Not when cargo is ruined, as that cargo was. As far as we could see, it was ruined.

Q. But the whole point that you are making is that you did not know whether the cargo was ruined or not. A. That seemed to be the opinion of all the surveyors over there at the time we made the survey.

Q. Did you make any inquiries of anybody of the nature of that citrate of lime? A. No, I 405
did not.

Q. Do you know whether any of the other surveyors did or not? A. I don't know.

Q. You just assumed it had been ruined? A. We assumed it was under water so long that no more damage could be done to it while the vessel was undergoing repairs.

Q. If you had thought that the cargo in that vessel in the hold was valuable and that it might be injured by being longer in the water, would

406 you have recommended that she be temporarily repaired and that the cargo be taken out?

Objected to as speculative.
The Court: I will permit it.

A. I would have taken it up with the hull underwriters and see what their recommendations were.

Q. I see. It was the hull underwriters that were in conference with you on this survey? A. And the classification surveyors and the owners.

Q. Well, that is to determine whether the repairs would be such as to give her 100 A-1 when
407 she goes out again? A. No, to see the best method of carrying out the repairs.

Q. When these repairs were finally made, they had to take part of the cargo out of No. 1 hold to do it ? A. No, Tietjen & Lang, I think—I know they had to move some of the cargo back in order to effect the repairs of the tank plates forward.

Q. They put some on deck, too, didn't they? A. I don't know whether they put any on deck. I know they had to move some to repair the tank plates, the margin plates.

408 Q. They could not have made the repairs without moving some of it, could they? A. No, they could not.

Re-direct examination by Mr. Sprague:

Q. Mr. Martin, was this hull damage of considerable extent or just a mere local damage? A. No, it was of considerable extent, extended from the stem, I should say 10 or 15 feet back in the No. 1 hold.

Q. Would you as a surveyor advise planking

that over with plank for the purpose of getting out cargo which had been under water three or four weeks already? A. No, sir. 409

Q. You never heard of doing any such as that, did you? A. No, sir.

Q. And it was a very large job for temporary repairs, anyhow, wasn't it? A. It was a pretty good sized job.

Q. Before you could make any such temporary repairs, you would have to obtain the consent of what persons ? A. The consent of the hull underwriters.

Q. They are vitally concerned in that, aren't they? A. They are; yes, sir. 410

Q. Are you sure that the representatives of the cargo underwriters were not present at the time of these surveys? A. I don't know whether they were present or not.

Q. You know there were a lot of underwriters around or representatives around, weren't there? A. I know there were a lot of people around the day we had the survey.

Q. You don't know whether there were any cargo underwriters or not there? A. No, I do not.

Re-cross examination by Mr. Carpenter: 411

Q. Can you tell me how the hull underwriters would be at all concerned in the temporary repairs to be made to take out the cargo? A. The owners would want them to pay the bill; the owners would not want to spend the money.

Q. Why would they want them to pay the bill? A. Well, she is insured. Why would the owner want to spend his money?

412 Q. The only purpose of putting on such repairs would be to get the cargo out? A. The underwriters are interested in that. The owner would not want to do anything unless he had the advice of the underwriters.

Q. Would the hull underwriters be concerned in that? A. In the temporary repairs? A. Yes, they would.

Q. To get the cargo out? A. Yes.

Q. In what way? A. They would want to see what kind of temporary repairs you were going to make and the owners would ask them to pay
413 for it. If they are asked to pay for it they are going to have something to say about it.

Q. Suppose they were not to pay it at all; suppose the owner was to pay for the repairs; do you thing the hull underwriters would be concerned in it? A. I believe he would, yes.

Q. In what way? A. He has a risk on the ship. He would want to know what the owner was paying, whether he was paying for it or not.

Q. Do you think it is better to put a ship overboard with temporary repairs on than with none, with a hole in it, to help fill up some more? A. I don't think it would hurt this ship any more.
414 She came all the way from Halifax with it.

Q. You think she was so hurt it could not be hurt any more? A. In lying alongside the dock.

Q. Do you think it would be better or worse for a ship to have temporary repairs made and put overboard, making her tight with temporary repairs, putting her overboard with temporary repairs, or putting her overboard without any repairs? A. I would put her overboard without any repairs.

Q. Why? A. I wouldn't want to go to the

expense of making temporary repairs; it would not affect the ship any. 415

Q. You think not? A. No, not a bit.

Q. Have you any idea what it would have cost to have made temporary repairs across that hole? A. No, I have not.

Q. Would it cost $5,000? A. I don't know; I haven't any idea.

Q. That is all.

Re-direct examination by Mr. Sprague:

Q. Wouldn't that be a general average charge to put in temporary repairs? A. It would. 416

Q. So that the hull underwriters would all be concerned? A. They would; yes, sir.

Q. Now, did you ever hear of any such temporary repairs being made to a vessel in New York for a cargo like this which had been under water? A. Not for a cargo that had been under water; no, sir.

Q. Was all that was done on this ship from the time you took charge to your satisfaction? A. It was; yes, sir.

Q. And in your estimation done expeditiously and properly? A. It was; yes, sir.

Q. To the interest of all concerned? A. Yes, sir. 417

Re-cross examination by Mr. Carpenter:

Q. Why do you say the expense would be general average, rather than a special charge on cargo? A. In order to discharge the cargo?

Q. Yes. A. Because it would benefit the cargo and the ship both.

418 Q. Didn't you say a moment ago that it would not benefit the ship at all and you would just as soon put her over without any repairs? A. You were talking about the physical part of the ship. I said it wouldn't hurt the ship to let her go over with the water in her.

Q. Then how would it help her to have the temporary repairs? A. It wouldn't help her.

Q. And it wouldn't be general average, would it? A. If they concluded to make the temporary repairs to discharge the cargo it would be, but it was felt at that time that all the cargo, as far
419 as anybody could see, was damaged and there was no use of spending any more money.

Q. At destination? A. At destination, yes.

Q. You say it would not be a special charge on cargo to make temporary repairs at destination only for the purpose of taking the cargo which had been damaged out of the hold? A. I don't believe there would be, because as far as I can see, there wasn't any cargo saved.

Q. That is based on your theory that it was worthless at that time? A. Well, not on my theory alone. There were other men over there, too.

420 Q. Of course, I understand. You are not the only one that thought that? A. All the surveyors at that time thought so.

Re-direct examination by Mr. Sprague:

Q. That was the general understanding among seafaring men and marine engineers? A. It was at the time of the survey.

Mr. Carpenter: A poor guess.

ROBERT HOWARD, called and sworn as a witness on behalf of the claimant, testified as follows: 421

Direct examination by Mr. Sprague:

Q. Captain, what is your business? A. Stevedore, sir.

Q. How long have you been in that business? A. About five years.

Q. Prior to that time what experience did you have with ships? A. I have been 21 years at sea, sir; about ten years in command and marine superintendent for the British Minister of Shipping at New York. 422

Q. Holding a Master's license under the British Board of Trade? A. Yes, sir; American, too, sir.

Q. Now, captain, did you in August, 1920, go on board the steamship *Willdomino*? A. Yes, sir.

Q. Where was she then? A. Pier C, Jersey City.

Q. What was her condition at that time ? A. Well, she had been aground, she had been fast, and the cargo in the lower hold, No. 1 and 2, was damaged with water, I was informed.

Q. Well, did you go down into No. 1 hold? 423
A. Yes, sir; as soon as I could get down there.

Q. What did you find the condition to be then? A. Well, we discharged cork and then, of course, we come to the water, the barrels, the citrate of lime.

Q. Found the water up how far? A. Well, we lightened the ship considerably, and of course she found her water level as she come out of the water, and by the time we got to the citrate of

424 lime we found it submerged; it was under the water.

Q. Entirely covered, was it? A. Yes, sir.

Q. Now, you discharged the lemons at Pier C? A. Yes, sir.

Q. And did you later discharge the cork at 129th Street, New York? A. Yes, sir.

Q. That was done by your force, was it? A. Absolutely.

Q. Well, now, did you try to discharge this citrate of lime that was under the water, No. 1 hold? A. No, sir; I had no orders to dis-

425 charge it. I don't know how I could have discharged it.

Q. Did you ever discharge any cargo like that, casks, when they were submerged under water? A. No, sir.

Q. Would you tackle such a job as that on stevedoring rates? A. Well, I have got no equipment; that is a diver's job.

Mr. Carpenter: I object to that question as leading; I don't see what he means by stevedoring rates.

426 Q. Would you have tackled the job under any circumstances, discharging that which was in the water? A. No, I am not prepared; I wasn't prepared; I don't know anything about that kind of business, working under water, sir; no.

Q. Do you think that is a commercially feasible job, to discharge cargo when it is under water in that way? A. No, sir; I don't.

Q. Well, now, you finally did discharge this cargo, didn't you, the citrate of lime? A. Yes, sir.

Q. And when did you discharge it? A. Well,

I put it on deck in dry dock, sir, which was the last operation I had. 427

Q. When it was in dry dock or after it was out of dry dock? A. Yes, sir; after the ship had been on the ways on blocks in the dry dock and the water had run away and left the barrels of citrate of lime in the hold, then of course we could get at it.

Q. You put that on the deck or only part of it on the deck? A. I think all of it went on deck.

Q. Could you have discharged it into the dry dock in that place, in your opinion? A. Into the dry dock, sir? 428

Q. Yes. A. Into the basin where the ship is laying?

Q. Yes. A. No, sir; I could have dumped it down, sir, but no facilities of discharging in the dry dock.

Q. Did you ever hear of discharging cask cargo of that quantity into the dry dock? A. No, sir; I never knew of it.

Q. You would have had to have specially designed gangway and platform to do that? A. It is possible you could have done it if there had been any ways or means of taking it where you could have rigged a gantry from the ship side and put it on to cars. There is only a thoroughfare where the men work and the dock equipment on the dock side—no place to do anything there. 429

Q. That would have interfered with the men working on the repairs to the ship? A. I should imagine it would, sir.

Q. What sort of job would discharging by divers have been under water, if that could have been done? Would that have been a quick job or a slow job? A. Wouldn't have been very

430 quick, sir, because they would have only got staves up, I am afraid; because when we got at it we had to go very carefully in lifting to get the casks up as intact as we could, because it seemed to me to be second hand casks, various sizes; staves had become swollen and the hoops had burst and we got it up the best way we could. Of course, a lot had got out and it was like sediment in the lower hold, the last of it that we got out.

Q. Well, then a diver would have had a pretty hard job getting that up, in your opinion, under the water? A. He would have got some of it
431 out but not as much as we did.

Q. Been pretty dangerous, too, wouldn't it, working down there with these heavy casks?

Mr. Carpenter: Don't suggest the answers to him.

Q. What are your views on that? Would it have been dangerous or not? A. Oh, I don't know that it would have been attended with a lot of danger for a diver, because there wasn't a great amount of water; but as far as a stevedore is concerned it was impossible. I couldn't do
432 anything with them.

Cross examination by Mr. Carpenter:

Q. You mentioned something about stevedore rates. Do stevedores have one rate for discharging cargo that is damaged and a lower rate for discharging cargo that is not damaged? A. Yes, sir; as a rule, yes.

Q. Did you give a rate to the Williams Steamship Company or anybody in their employ for

unloading the cargo in No. 1 hold? A. Yes, I 433
gave them a rate for the whole cargo.

Q. Did you give them two rates for unloading that particular vessel that time, one for unloading the holds that contained the lemons and the casks of citronate, and still another rate for unloading the entire cargo? A. Yes, sir; there were various prices in the contract.

Q. I see. They finally gave you the contract to do the cheapest work, didn't they? A. Finally gave me the contract to do the cheapest work?

Q. The cheapest rate. A. Well, I told Mr. Williams it was agreed that this damaged cargo, which I could not handle—he said we are determined to go ahead as far as we can. Mr. Williams did not know the conditions we would find down in the hold, because was all between decks, had to be discharged before we could see down there. 434

Q. Well, you knew, did you not, from the moment you went on board that ship the first time, that the only damage was in No. 1 hold? A. Hold 1 and 2, sir.

Q. What damage was in hold No. 2? A. Well, if I am right, the bulkhead had carried away; she was leaking, I think; there was water in No. 2. 435

Q. No. 2? A. I think so.

Q. What was the cargo in hold No. 2? A. Well, I tell you, sir, I have just been called on this case just now. I haven't got any record right now. I think it was citrate of lime in No. 2 as well as No. 1. No. 1 was the hold where there was the most citrate of lime.

Q. I see. Your recollection is that there was citrate of lime in both holds 1 and 2? A. I believe there was, sir.

436 Q. Well, you are a stevedore; you were down in the hold yourself? A. Yes, sir; frequently.

Q. Now, when was the first occasion that you took any citrate of lime out of hold No. 2? A. Hold No. 2?

Q. Yes. A. In the dry dock, Tietjen & Lang.

Q. How many casks did you take out that time? A. I couldn't tell you, sir.

Q. When was the first occasion that you took any out of hold No. 1? A. I am not sure, but I think there was some citrate of lime discharged on North River Pier, where we discharged the cork on the open dock.

437 Q. On 129th Street? A. Yes, sir.

Q. Did you have any trouble getting the cork out of there? A. Well, the cork floated; the last of the cork we took out was floating away. We kind of fished it out to deliver the consignment of cork.

Q. You didn't have any trouble at all getting that out? A. Yes, we had quite a lot of trouble.

Q. How long did it take you to get all the cork out of hold No. 1? A. I just couldn't tell you but I know it was an extended job.

Q. As much as two days? A. What, the cork
438 in No. 2? Yes.

Q. No. 1? A. Yes, I should say so.

Q. How long? A. I just couldn't tell you, sir; I have discharged so many ships before and since then, I just couldn't tell you that particular operation.

Q. Did you ever unload a cargo from a vessel that had been temporarily repaired, had planks put across the breach in her hull and then caulked? A. I haven't personally myself, sir.

Q. Ever work on such a job? A. No, I have not.

Q. Have you known of such jobs? A. Yes, sir. 439
Q. That is a common situation, isn't it? A. Well, it all depends upon the position; I have been in foreign ports where I have been called on surveys, where ships have been in collision, where they have had to put a temporary patch on for to bring the vessel home, and that kind of thing.

Q. It is entirely possible to put a patch on and keep out the water and then stevedore it out? A. No, sir; I never seen it done at a port where the cargo is discharged; I have been in places like Montevideo and other places, been as Master, 440
called in as surveyor where things have been damaged to allow the vessel to go to destination. I have seen it patched in that case, but when the cargo has gone to its destination, then to patch the ship up——

Q. Well, if a patch had been put on this particular hull of this vessel with the water out of it, you could have taken that cargo out just as well as you took it out later on? A. I could have taken it out just as well if it had been dry and I could have gotten them down there.

Q. Would your rate for it, though, have been higher or lower than it was when you did take 441
it out? A. It would have been higher, sir.

Re-direct examination by Mr. Sprague:

Q. Captain, what was the rate—did I understand you correctly in your cross examination to say that you gave Mr. Williams a rate for discharging this cargo in No. 1 hold under water? A. I think the rate Mr. Williams must have had in writing that I would take the job at cost plus,

442 because I did not know what conditions I was going to meet with.

Q. That is, you would discharge the cargo that was under water at cost plus ? A. Yes, sir.

Q. What was the cost plus? A. 10 per cent.

Q. That meant you would have to hire the divers? A. I don't deal in divers.

Q. Well, that is the only way it could be taken out? A. Oh, no, sir; I would not handle the cargo under the water because I haven't got the equipment.

Q. Oh, you wouldn't handle that at all? A. No, sir.

443 Q. Then you didn't give any contract for discharging this under water? A. No, sir.

Q. Now, are you sure that these casks that you took out of No. 2 hold up at 129th Street were not casks of citronate instead of citrate of lime? A. No, I just——

Q. It appears that there were some casks, but of a different shipment up there. A. I just couldn't tell you. Of course, I was in touch with Mr. Williams from time to time and I was guided by their instructions and I suppose they got in touch with the consignees and ordered the cargo

444 out, of course, and lime. I was under their instructions.

Q. You don't know what casks were taken out up at 129th Street? A. No, sir; there was some that was gettable, and we took them out at that time at the North River pier.

Q. As a stevedoring job, do you think it was possible to take the cargo out before it was taken out of the No. 1 hold? A. Not for me, sir; I couldn't do anything with it.

ALBERT G. STILLWELL, called and sworn as a witness on behalf of the claimant, testified as 445
follows:

Direct examination by Mr. Sprague:

Q. Mr. Stillwell, what is your business, please? A. Chemist.

Q. How long have you been in that business? A. 25 years.

Q. Will you state in detail what your qualifications are as a chemist? A. I graduated from the School of Mines, Columbia University, 1898, with the degree of Bachelor of Science, and in general analytical work since. Then five years 446
for my father and 20 years for myself analyzing various kinds of material, chemicals.

Q. When you were with your father it was with the firm of Stillwell & Gladding, New York? A. Yes, sir.

Q. And your present name, under which you do business, is what? A. Stillwell Laboratories, Incorporated.

Q. Are you acquainted with the properties of citrate of lime? A. Yes, sir.

Q. What acquaintance have you with them? A. We have analyzed it, had it in the laboratories. 447

Q. What is this? What kind of substance is it, and how is it made? What is it like? A. Why, it is citric acid mixed with lime so as to get it in condition to ship. They ship it as a solid instead of shipping it as concentrated lime juice in barrels, where there would be more danger of leakage.

Q. It is a crystal or a powder? A. It is very fine powder.

Q. What common compound does it resemble,

448 if you can name any, in appearance? A. Oh, white, very fine, ground sugar, for instance. It comes in separate grain. It is not a true powder; it is a granular material, but very fine.

Q. Do you know what effect sea water has upon citrate of lime, such as you have just mentioned, when it has been shipped in casks, which are not tongued and grooved, but which have spaces between the staves, so that when it is loaded on board, the testimony says, fine powder was left on the deck? A. It would go through a very small aperture. It is fine enough a powder to
449 sift through the spaces between the staves.

Q. What would be the effect on a number of casks of this commodity being submeregd under sea water and remaining submerged under sea water for a period of, say, three days, as this did before it reached Halifax? A. The water would penetrate through the entire cask. It would not cake as flour would, for instance, and form a cake which would protect the inside. The water would go through it, the same as it would go through a barrel of sand. It is not soluble in water and all citrate, lime, soda, ammonia, any one of them, are subject to fermentation and
450 decomposition when exposed to moisture and air. If the water is impure, carrying bacteria, the decomposition would start quicker.

Q. Do you know how long that decomposition would continue? A. Well, as long as the bacteria had anything to live on or could exist.

Q. Well, would—— A. And the life of bacteria is dependent on air.

Q. What is the chemical reaction of the bacteria fermentation which results from the sea water coming in contact with this citrate of lime? A. The citric acid, citrate, is decomposed

into carbonic acid, which would more or less unite with lime that originally was combined with the citrate, forming a carbonate of lime, and the citric acid would disappear as such, no longer be citric acid. 451

Q. How long would that chemical reaction continue, in your opinion? A. Well, it would continue indefinitely, until the material was all gone, as long as conditions were right for the fermentation, the bacteriological growth to continue.

Q. Would that continue as long under water as though it were taken out from under water and exposed to the air, for instance? A. No, it would not. 452

Q. What is your reason for that? A. The bacteria would not have—in the first place, it would be cooler. All bacteriological growth is slower in a cool place than in a warm place. Second, it would not have the proper amount of air to keep the bacteria alive.

Q. Now, would there be any foreign substance brought into this citrate of lime by the sea water itself? A. Yes, the natural salts, the sea water contains chlorides principally.

Q. Is that extraneous matter hard to remove from the citrate of lime after it has been damaged by the sea? A. Well, due to the fact that the citrate of lime is insoluble in water, those salts could be washed out. There would be some mechanical loss on account of the very slow solubility of the lime, but if facilities were right the impurities could be washed out to a very large extent—probably not entirely. 453

Q. What is the great damage that is done by sea water coming in contact with citrate of lime? Is it the extraneous matter brought in or is the chemical and bacteriological action which sets in

454 after the salt water has come in contact with the citrate? A. It is the actual destruction of the citrate, as such, by the fermentation and decomposition due to the bacteriological growth.

Q. And I understand from your testimony that that is less when it is under water than it would be if it was brought from the water and exposed to the air? A. The growth of the bacteria would be very materially retarded.

Q. Is the growth in your experience greater at the beginning or great at the end? A. Well, that is hard to say. It is so entirely dependent on conditions; in any decomposition like that there
455 is always heat generated and as this material got warm through the actual fermentation or heat developed by the fermentation, the growth would probably be a little faster.

Q. Well, now, in this case, Mr. Stillwell, the facts show that the citrate of lime was in No. 1 hold; that on the 24th of July, 1920, the vessel ran on a submerged reef; that within twenty minutes soundings in that hold showed that there was twenty feet of water on one side and eighteen feet on th other; that the vessel then continued on to Halifax, arrived there on the 27th; that
456 she stayed in Halifax and various temporary repairs were made, with the same amount of water in the hold, until just before she left Halifax, when ballast was put on her stern, and the depth of water in No. 1 hold reduced by about four feet; that she was then brought down by tug to New York. arrived here on the 7th day of August, 1920. Now, I would like your opinion as an expert of those facts——

Mr. Carpenter: I object to that because it don't show the throwing off of the bal-

last out at sea, outside New York, and the exposure to the air in the meantime, and the new ballast being put on; doesn't show that after she got to New York, the bow went still further in the water when you unloaded the lemons and still further when you unloaded the other stuff; then put her on the dry dock and let out the water and then put her back in the water and filled her up again. Unless those facts are shown—— 457

Q. All right; add all those facts, in exactly the terms Mr. Carpenter has stated. Now, assuming all those things that my friend has stated, what is your opinion as to whether the damage which this commodity had suffered had been suffered before it reached New York on August 7th or was increased from August 7th on to the day of her discharging on October 2nd? A. My opinion would be—— 458

Mr. Carpenter: I object to that question because I think that is not quite a proper hypothetical question, so that your Honor or a Court of Appeals, if it ever gets that far, could tell what the question asked of this witness was. 459

The Court: Do you understand the question? All that Mr. Sprague asked you and all that Mr. Carpenter suggested should be added to it?

The Witness: As I understand it, he wants an opinion from me as to whether the material was damaged when it was first wet and whether that damage increased later.

460 The Court: Taking all the facts into consideration which caused its becoming wet in the first instance, and what transpired afterwards. All right, proceed.

A. The material was damaged as soon as it was wet in the first place by the contamination with the sea water, with salts contained in the sea water. In the second place, the fermentation would start at once; it would probably grow very slightly while the material was still submerged, and on exposure to air that fermentation would increase, after it had once been wet.

461 The Court: Well, now you had better answer the question.

Q. (Question repeated.) A. As I understand, the material was under water after August 7th practically until the time it was discharged?

Q. With the exception of 36 hours on August 25th and 26th, when she was in dry dock, eight hours on August 28th, and again from September 21st to October 2nd, when it was discharged. A. The damage due to fermentation would be practically the same up until the time it was
462 exposed to the air. When it was exposed to the air that fermentation would start up again, if it had ceased before that and further damage would take place.

Q. Well, assume that as the facts show, that on August 25th, water ran off for 36 hours; then it went back in the water again; would going back in the water stop that fermentation or not? A. Yes, it would practically stop it; I mean it would probably continue for a few hours with the little life that had been given to it by exposure to air, but it would kill it again.

Q. The same would be true about the eight hours that the water ran off on August 28th? A. Yes. 463

Q. But that when the water was allowed to run off the last time and the plates put on and then the cargo taken out, in your opinion the reaction would start up anew? A. Yes.

Q. Now, when in your opinion was the great damage caused to this commodity?

Mr. Carpenter: I object. I suppose that is assuming all these facts?

The Court: Yes.

464

A. Why, the damage was done when it was first wet.

Q. Within how long after the water came in over the barrels? A. At once.

Q. As soon as the water penetrated? A. The actual wetting of it was the damage. The decomposition and actual loss of citric acid content would not be immediate.

Q. What proportion would that loss of the decomposition bear as to the loss by the actual wetting? A. Well, it would be small. The first part,—because to recondition that material, if it had only been wet with water and no fermentation had taken place, would be an expensive job, whereas the actual fermentation or loss due to fermentation that could have taken place under those conditions where it was kept submerged would be very small. I question if you would lose one per cent. of it. 465

Q. You think the loss in fermentation would not be over one per cent.? A. I don't think so.

Q. That is all.

466 *Cross examination by Mr. Carpenter:*

Q. Do you mean, Mr. Stillwell, that if this citrate of lime had been taken out of the hold at Halifax, the loss would have been only one per cent. of the value of the citrate of lime? A. You mean the actual loss of citric acid content?

Q. Yes. A. Irrespective of the sea water damage from contamination?

Q. I am speaking of the loss of citric acid content.

Mr. Sprague: Well, I object to that,
467 your Honor. I think it should be the question as to the amount of damage that is done to the goods.

Mr. Carpenter: We will come to that, of course. This is only a question on cross examination.

The Court: Proceed.

A. When it first came out of the water I would say that it had not suffered a loss of more than one per cent.

Q. Now, what do you mean by one per cent.? One per cent. in volume, one per cent. in quality
468 or one per cent. citric acid content? A. One per cent. in citric acid content.

Q. Now, there was in this particular cargo what percentage of citric acid content? A. I don't know; I haven't analyzed it.

Q. 64 per cent.; so that instead of being a 64 per cent. citric acid content, it would have been a 63 per cent. citric acid content? A. If the material could have been taken out of the boat at Halifax and treated immediately, so that all fermentation stopped.

Q. Well, now, it is a perfectly feasible thing 469
to treat citric acid under those conditions, or fumigate it so that fermentation would stop, isn't that so? A. If you have the facilities.

Q. You could do it with benzoids, couldn't you? A. No, you would damage the stuff more than the fermentation. You could not recover it. In other words, for use, if you used fumigants on it.

Q. Oh, what would you stop fermentation with? A. I would immediately wash it and purify it, wash out all the fermentation and redry it.

Q. Do you think of any other method of stopping fermentation? A. There are lots of methods of stopping it, but none commercially possible 470
for this kind of material.

Q. How about sulphuric acid? A. Then you destroy it. You would be putting it through a process to make citric acid. You would be manufacturing citric acid.

Q. Don't you know that deep sea water is sterile, practically sterile? A. Why, yes, it may be sterile.

Q. Now, then, deep sea water being practically sterile and mixed with citrate of lime, fermentation would be extremely slow, wouldn't it? A. No, sir.

471

Mr. Sprague: I object to that, your Honor, on the ground that the facts do not show it was deep sea water. This was within five miles of the coast and there were fishing nets caught in with their plates, according to the testimony.

The Court: I will permit this—Halifax Harbor.

Mr. Carpenter: No, he was out a day

472 and a half from Halifax, further toward the North Pole.

The Court: I will permit it.

A. The fact of the water being sterile wouldn't make any difference whatever, because there are bound to be enough impurities in the citrate of lime itself to have started fermentation. Fermentation I don't claim comes from contamination of the sea water.

Q. Do you mean that considering also that the citrate of lime was under water in the hold of a vessel out in the deep sea? A. I don't see the
473 point of the question.

Q. I say, do you mean to say that the fermentation would start very soon considering the fact that the immersion was in deep sea water or at sea where the water is cooler than it is in the harbors? A. The fermentation would start as soon as the material was wet due to the fact that it itself contained natural ferments which only needed moisture to start them going.

Q. Have you experimented to find out how long after sea water is mixed with citrate of lime fermentation starts? A. No.

471 Q. You have not experimented. Have you had any sea water submitted to you so that you could make experiments with citrate of lime ? A. No.

Q. Have you ever had occasion to examine citrate of lime before that has been damaged by sea water? A. No.

Q. It is highly insoluble material, isn't it? A. Yes.

Q. Water would not run through it like it would run through sugar? A. It would not run through it—yes, it will.

Q. You think it would? A. Yes.

Q. It would not dissolve as sugar would? A. No, it is soluble less than one-tenth part per one-hundred, whereas sugar is very highly soluble. 475

Q. Don't you think, Mr. Stillwell, that the effect of putting ballast on the stern of a ship and raising the hull in which wet citrate of lime was, and then throwing that ballast off after two or three days and let her go down by the head again——

Mr. Sprague: I object to that, your Honor.

Mr. Carpenter: Wait till I finish the question. 476

Q. And then to bring her into a harbor, New York Harbor, and then go through the process of exposing the citrate of lime to the air and then wetting her again, repeating that two or three times, would increase the damage, more than to have taken it out and dried it immediately?

Mr. Sprague: I object to that, your Honor, the facts show that at no time was anything more than the top of the top tier of barrels exposed to the air even by the use of the ballast at the stern of the ship. So it was always under water with the exception of the top of the top tier of the barrels. 477

The Court: Of course, if your question is not in accordance with the facts as they stand now, you will have to reframe it to make it so.

Q. Assuming that all of the barrels were first immersed, and that after three or four days some

478 of the barrels were exposed to the air, and then a few days later they were immersed again, and then in dry dock all of the barrels were exposed to the air, and then they were again put in the water, and a day or two later, again taken into the air, exposed to the air, and then again immersed. Would that repeated immersion and repeated exposure to the air have a beneficial or harmful effect on the citrate of lime? A. Every time it was submerged in water, the fermentation would be stopped.

Q. Why would it stop? A. Because the growth
479 cannot go on under the water to any extent.

Q. Why is that? A. The fermentation and growth of bacteria cannot go on under the water to any extent.

Q. That being the case, there was no damage to this citrate of lime at Halifax where the immersion had been continuous from the time the vessel struck for three days until she landed in Halifax, isn't that so? A. There would be a slight fermentation.

Q. It would be under water then? A. I know, but the bacteria will grow for some time under, but not as they will in the air.

480 Q. Then, to expose the product to the air for a while, and then put it back in the water, would mean that you would have still more bacteria at work after the first exposure? A. Exposing them to the air would start them up again. If it was left exposed long enough for the fermentation to start, it does not start immediately.

Q. Isn't this a fact, Mr. Stillwell, that there are more impurities in water in a harbor than in the deep sea water? A. Yes.

Q. And the water in a harbor such as New York Harbor, would set up a more rapid fer-

mentation in citrate of lime than deep sea water? 481
A. No.

Q. Why not? A. Because it is not the contamination of the dirty water that makes it ferment, it is the natural ferment in the citrate itself which causes fermentation.

Q. What is that ingredient in the citrate itself which first starts to ferment? A. It is the particular bacteria that works on that particular product, I don't know the name of it, I am not a bacteriologist.

Q. Do you know on what particular part of the content citrate of lime it works on first? A. 482
Works on the citric acid part and the citrate is not affected.

Q. Have you experimented specially to determine that or not? A. I have had every general knowledge of the ferments.

Q. That is all.

Re-direct examination by Mr. Sprague:

Q. Mr. Stillwell, what is the effect of the first fermentation? Is it not to form a calcium carbonate? A. The carbonic acid generated by the decomposition of the citrate will unite with the 483
lime freed from the citrate and make calcium carbonate of lime.

Q. Now, that calcium carbonate of lime forms a coating right around this material, does it not? A. It is an insoluble salt and would undoubtedly stick to each separate little crystal.

Q. What would be the effect of that coating of carbonate of lime? A. Protect the interior or the actual citrate of lime, both from water and from air so that decomposition could not go on.

Q. It is the oxygen in the air and the oxygen

484 in the water that causes fermentation largely, isn't it? A. That lets the bacteria grow, feeds them, makes them so that they can grow.

Q. Now, in ships you have bilge water, don't you, that consists of various impurities that come in from the cargo? A. Yes.

Q. The pumps and everything like that. That has to be taken into consideration, doesn't it, in a question like this? A. Yes.

Q. As I understand your cross examination, you say that at the time the vessel arrived at Halifax, the fermentation loss was small? A. Yes.

485 Q. But that the original loss due to the foreign matter brought in by the sea water and its immersion was still there and that was large? A. Large and just the same as it ever would; that would not change, no matter how long or how short a time it was in the water, as soon as it was wet that damage is done.

Q. I also understand from your testimony, and I want to get it correct, please, that the proportion between the damage done by the original immersion, and the damage done by subsequent fermentation—that the percentage of the subse-

486 quent fermentation damage is not greater than one per cent. of the original damage?

Mr. Carpenter: Oh, no, he did not say that.

A. Well, I cannot answer that question yes or no because the damage due to fermentation will continue just as long as the material is exposed, and it is not stopped. My saying one per cent. loss was, if it was possible to stop it within a day maybe or two after it was exposed to the air,

dried, in other words, and so kill the bacteria or 487
wash the thing out. If it was left for six months exposed to the air, it would all disappear and there would not be anything left.

Q. And would disappear much more rapidly in the air than it would under the water? A. Oh, yes.

Q. If this had been discharged then, in New York, when it first arrived here and been put on the dock and not reconditioned at once, it would have fermented much faster than it would under the water, is that correct?

Mr. Carpenter: I object; that is very 488
leading from your own witness.

The Witness: Yes.

The Court : Yes.

Mr. Carpenter: There is no showing as to what would have happened.

The Court: Reframe the question.

Q. Assume that this citrate had been discharged immediately upon arrival at New York, two weeks after it had been first immersed in the water and had then been placed in the open air without being reconditioned, what would the effect upon fermentation have been? A. At that time of 489
year when it was warm in the summer the decomposition would have been very rapid.

Q. Would it have been more rapid in the air than it would have been in the water? A. Very much more so.

Q. Would it have been more rapid in August than it would have been in October? A. If it was warm at that particular time, as I presume it was.

490 *Re-cross examination by Mr. Carpenter:*

Q. Mr. Stillwell, what do you say was the per cent. of damage done by the original immersion? A. Which kind of damage? Loss of citric acid content or damage through contamination?

Q. Damage due to contamination? A. I don't know what percentage, entirely a matter of cost of reconditioning.

Q. And you have said that the damage to the citric was one per cent.? A. I said I would assume to be not over one per cent.

491 Q. And the other damage you cannot tell? A. No.

Q. It would just be the cost of reconditioning? A. Manufacturing cost for reconditioning.

Q. I see. Now, then, you don't think that it improved this citrate of lime any, do you, to have kept it in the ship and immersed and dried, immersed two or three times between August and October? A. Improved its condition as against what?

Q. As against taking it out immediately and reconditioning it? A. It kept it in better condition that it would have been if it had been
492 taken out where there were no facilities for reconditioning at once.

Q. Taken out and reconditioned? A. If it could have been reconditioned within two days or three days after it was taken out of Halifax, if it could have been taken out, it probably would have been in better condition than it finally was.

Q. Now, then, let me ask you this: Would this citrate have been better the moment it was put on the dock if it had been unloaded August 7th or unloaded October 4th? A. It would have been better August 7th.

Q. Isn't any doubt but what it would deteriorate after that, every time it was exposed to the air? A. The deterioration would go on if it was exposed to the air, yes. 493

Q. That is all.

By Mr. Sprague:

Q. Can you determine the amount of that specific deterioration or not? A. Could it be determined, you say?

Q. Yes. A. Only by carrying out elaborate experiments under those same conditions.

Q. That would be the only way to show would be by experiments? A. Yes. 494

Q. That is all.

At this point on adjournment was taken to Friday, February 2, 1923, at 10:30 A. M.

February 2nd, 1923; 10:30 A. M.

(TRIAL RESUMED.)

JOHN P. SIMMONS, called as a witness in behalf of the claimant and, being first duly sworn, testifies as follows: 495

Direct examination by Mr. Sprague:

Q. Dr. Simmons, what is your present occupation? A. I am Associate Professor in Chemistry at New York University.

Q. How long have you occupied that position? A. I have been at New York University since 1907. This is my sixteenth year.

496 Q. What was your technical and professional education in that line? A. I received the degree of Bachelor of Science in Mechanical Engineering, Doctor of Science in Chemistry, and I have had other experience in commercial lines.

Q. Have you made tests of various chemicals? You are also a director of the Havemeyer Chemical Laboratory of New York University? A. Yes.

Q. Have you made tests of citrate of lime with sea water? A. I have.

Q. When did you make those tests? A. Beginning in February, 17, 1922, I think, running through a period of two months.

497 Q. Will you please state the manner in which those tests were made? A. A two-pound sample of citrate of lime was placed in sea water and a mixture of sea water and bilge water running from ten per cent. of bilge water and ninety per cent. of sea water up to I think fifty per cent. of bilge water and fifty per cent. sea water. These specimens were tested from time to time as to the amount of citric acid present, noting the amount of citric acid in the original material as furnished to us, and analyzing the samples from time to time during this period we were able to measure

498 any loss in citric acid.

Q. How many various beakers did you have going at the same time? A. There were altogether six tests.

Q. Six different tests? A. Where the liquid varied from sea water up to I think fifty-fifty of sea water and bilge water.

Q. How often did you make the examination of the tests to find out what the change had been? A. The intervals varied somewhat from five to three and seven, no definite time, but it would be three days, seven days and five days.

Q. What did you first observe after you put 499
the chemical into the water? A. May I refer to my record?

Q. Do you wish to refer to a memorandum? A. Yes. The changes to be observed in the different beakers were significant. At the end of the first day a heavy yellow scum had collected in all the samples; and at the end of the second day, all the beakers containing bilge water were black. The sample immersed in the pure sea water remained yellow, however, until the tenth day when it also turned black. A microscopic examination of the scum made during this period failed to 500
show any essential difference between the yellow and the black scums. Both consisted of unorganized, decayed, organic matter upon which a number of unicellular animals were thriving. During this period a decided darkening of the material took place, and a very foul odor was developed. At the end of three weeks another gradual change took place. The beakers slowly improved in appearance, the water becoming clearer, although they never approached absolute clarity.

Q. At the end of three weeks did you make any test to find out whether the reaction that has been mentioned by you had been completed? A. 501
Yes. At the end of three weeks we made tests all through that interval of the three weeks and found a slight loss in citric acid; at the end of three weeks not more than three per cent. The original citric acid calcium citrate with which we started analyzed about sixty-six per cent. I should say an average of the analysis of the six samples showed about sixty-three per cent. The bilge water evidently had no effect as far as we could measure it upon the rate of decomposition

502 or the extent of composition of the calcium citrate.

Q. Did the decomposition cease at the end of three weeks or did it continue thereafter? A. At the end of three weeks decomposition apparently ceased; there was no longer an evolution of carbon dioxide which is an indication of fermentation. The black color disappeared and the organisms apparently disappeared. A microscopic examination showed a decrease in the number of organisms in the liquid at the end of that time and we got the impression that the material im-
503 proved; that is it deteriorated to an extent up to three weeks and from that point on it improved in color; there was an apparent stoppage in the fermentation and our analysis showed that the amount of citric acid did not decrease.

Q. What is the explanation of that, of the cessation of the decomposition? A. I hesitate to speak on bacteriological matters, but from my reading and conversation with bacteriologists, I understand that the organisms, the bacteria, some of them require oxygen for their growth, free oxygen, so-called aerobic bacteria, and another class of bacteria do not require a great deal or very
504 much free oxygen, but will keep on taking oxygen from material which contains its compound, not free oxygen. These are called anerobic bacteria. If the bacteria acting in these mixtures require oxygen for their growth as the aerobic, it is easy to see how this class might cease to exist due to the using up of oxygen in the sea water, because sea water would contain a certain amount of oxygen dissolved in it, so that the using up of the oxygen might account for the cessation of the oxygen of the aerobic variety. The anaerobic variety are able I understand, to take oxygen from

compounds containing it, and when the food the 505
bacteria requires disappears, that might cease to an extent their action. Then, too, I understand the bacteria will in their process of growth produce poisons which will ultimately result in their death. So that I think there are three factors from my limited experience along this line that I might say would contribute to the cessation of the activity, the loss of oxygen, the loss of food and the production of poisons by bacteria.

Q. What about the termination of the chemical reaction? A. The decomposition of the calcium citrate I believe is bacteriological.

Q. What is the result of immersion of the cal- 506
cium citrate and the sea water upon the calcium citrate as to formation of other compounds? A. Negligible.

Q. Calcium carbonate is formed, is it not? A. Calcium carbonate is formed as a product of the fermentation.

Q. Did you see any signs of that calcium carbonate? A. Yes. The scum that formed on the surface of the liquid was calcium carbonate. When the decks were removed they seemed to be covered with a scum. Those may have been taken to an extent from the surface of the liquid as they 507
were removed, but there was evidence of calcium carbonate.

Q. There was a covering in of the calcium carbonate around the top? A. There was.

Q. What would the effect of that be as far as protection of the material is concerned? A. My opinion is that the presence of that calcium carbonate would act as a protective coating; tend to keep the oxygen away and would tend to retard the growth of the bacteria that require oxygen.

508 Q. Professor Simmons, in this case the testimony shows that there were five hundred and fifty odd barrels of citrate of lime stowed in lower No. 1 hold of the S.S. *Willdomino,* taken on board in Italy in June, 1920; that the vessel with the citrate of lime so stowed ran on a reef off the coast of Nova Scotia on the 24th of July and crushed in her bow so that water to the extent of twenty-one feet on one side and eighteen feet on the other side of No. 1 hold was found within half an hour; that the vessel then slowly made her way into the Port of Halifax, arriving there on the
509 27th of July; that she lay in the Harbor of Halifax with this amount of water over her for a period of about seven days, during which time she, under recommendations of various parties there, was temporarily repaired so that she could be brought down to New York; that as part of the repairs, sand ballast was put on the stern of the ship so as to raise the bow about four feet and decrease the water in No. 1 hold by about four feet; but still, according to the testimony, so that it covered all of the citrate of lime except part of the upper tier of barrels; that the vessel was then brought down to New York in tow of a tug arriv-
510 ing here on the 7th of August and that just prior to entry of the vessel into New York the ballast was discharged and consequently the assumption is that four feet additional water entered into No. 1 hold entirely covering those casks. The evidence now shows that the cargo was discharged, the other cargo which had not been covered with sea water between the 9th of August and the 24th of August, and the vessel then went into drydock for a period of thirty hours during which a survey was held, and that she was then put in the wet dock and the water again went into No. 1

hold again covering these barrels of citrate of lime; that on the 28th of August the vessel was again put in drydock for a period of eight hours for various requirements of the contractor who was completing her repairs; thereafter she was put in the wet dock and the water again ran over her; that on the 21st of September the vessel was finally put in the drydock and all the water taken off from the citrate of lime and thereafter the lime was not immersed. 511

Now as a result of your knowledge and of your experiments, I ask you whether in your opinion under those circumstances there was any loss to this citrate of lime after the 7th day of August which was a period of fifteen days. 512

Mr. Carpenter: I object to that question on the ground that it is incompetent. It calls on the witness for the ultimate fact to be decided by the Court, whether or not there was any loss. He may say what the fact was, he cannot decide the case for your Honor under the rules of evidence.

Mr. Sprague: He may testify as an expert.

The Court: You may put it in form so that it will appear that he is giving his opinion as an expert. 513

Mr. Sprague: I will modify the statement and say, "In your opinion as an expert what do you think occurred to this citrate of lime after its arrival at New York, in your opinion?"

Mr. Carpenter: I object to that also on the ground that it does not appear that this witness has made any tests which are at all analagous or similar to the situation

514 that this particular citrate of lime went through.

The Court: I will accept his testimony for what it is worth.

A. We did make tests to simulate as near as possible the conditions on the ship; that is as to immersion and taking out. The bags containing the citrate of lime were put into the salt water and mixed and taken out for a period corresponding to the time that the ship was taken out of water. There were such taking outs of the material from the water to simulate as near as pos-
515 sible the conditions on the ship, and we found that for these short periods at least the amount of decomposition did not seem to be accelerated or changed.

Q. With that explanation will you answer the question, please? A. And it is my opinion that the material did not suffer any further decomposition until possibly the final taking out and unloading of the material.

Q. You qualified that by saying "until the final taking out of the material." What is the fact according to your experience and judgment and
516 knowledge of exposing citrate of lime to the air? A. In my opinion in this particular case, when the final unloading took place the material was stored up more or less, and that protective coating was broken, a great many, I understand a large number of the casks were broken, the casks were poor casks, water could get in, and there was a chance for storing up of the material and this it seems to me would expose again the fresh portions of citrate of lime to the air, and when the final unloading took place I am of the opinion that more fermentation perhaps set in.

Mr. Carpenter: I move to strike out that last answer of the witness on the ground that it is based upon the assumption that the casks were poor, whereas the evidence upon which the testimony is based shows that the casks were proper casks, and the master so states in his deposition on which part of his testimony is based. 517

Mr. Sprague: I cannot agree with the assumption of my adversary. It was said yesterday that the casks were second-hand casks and the master stated that the casks were so loose that when they were set on the deck of the ship the fine powder came out on the deck. 518

Mr. Carpenter: Part of the testimony on which the hypothetical question was based has not been yet read to your Honor, but my recollection is very clear that in the testimony of the officers who saw the cargo unloaded they testified that the casks were the usual type of casks, new casks, but they were not like an oil barrel that is designed to keep liquid from flowing out, but they were the kind of casks customarily used for the carriage of citrate of lime, and of course they were injured in the course of this long immersion, but I think I am right in saying that the testimony that the casks were poor and improper is not correct. 519

The Court: I cannot tell what the facts are and I will let the question and answer stand. If afterwards I find that there are some facts incorporated in the hypothetical question which should not be there, I will have to ignore the whole question and an-

520 swer. Why do you not ask another one and get it on the record eliminating that part which is objected to so that you will have both ends?

Mr. Sprague: Yes, sir.

Q. Assuming that the casks were in good condition at the time they were loaded on the vessel, making that assumption, would that make any difference in your answer? A. It would not.

Q. Will you state why it would not make any difference? A. Here again I will have to rely on information that I have received, that a number
521 of casks were broken and the material contained in those casks was scattered around. Now, the handling of that material, the storing up of that material, would tend to increase or start up again the bacteriological action resulting in the loss of citric acid.

Q. Citrate of lime is not soluble, is it, in water? A. It is very slightly soluble.

Q. Supposing that these casks were not tongued and grooved and not impervious to water, would the water permeate entirely through the casks or not? A. In my opinion the water would.

522 Q. What would the effect be of the mere act of the discharge after the water was thrown off from the hold? A. The material would still be mud practically. We found, if I may say this in that connection, that on taking samples out and allowing it to drain off a short time, the material contained as much as fifty per cent. of water.

Q. That is after they had drained off for some time? A. For a short time.

Q. What did you find about the breaking down of that material after it was exposed to the air and taken from the water? A. For the short pe-

riods corresponding to the period when the ship 523
was taken from the water we found in the bags no appreciable decomposition.

Q. But for the period that you included your tests and took them out of the beakers? A. After removal, or rather I might say we started another set of tests extending for over a period of five months, and kept the material out for long periods of time, and there we got a very appreciable loss in citric acid, indicating that agitation of the material and exposure to the air would increase the amount of loss of citric acid.

Q. That was after it was removed from the sea 524
water; after the water had been drained off? A. Yes.

Q. It is a scientific fact, is it not, that citrate of lime breaks down in the presence of air without any water at all? A. Citrate of lime, if the bacteria are absent, I should say that it did not break down.

Q. What can you say as to general knowledge among laymen, not scientists, as to the properties of citrate of lime in the summer of 1920 and the fall of 1920?

Mr. Carpenter: I object to that. 525
The Court: Objection sustained.

Q. Could you state from your own recollection or from your notes the times that you raised these bags containing the samples out of the water, how long they remained out each time? A. At the end of the second week the bags were suspended in the open air for a period of twenty-four hours to simulate as closely as possible the condition of the calcium carbonate in the cargo of the vessel under consideration, so that at the

526 end of the second week, twenty-four hours; at the end of the third week, twenty-four hours; that was the information I think we had at that time.

Q. And I believe you said that the results of their again being immersed did not show any acceleration? A. Did not show any loss.

Cross examination by Mr. Carpenter:

Q. How much citrate of lime did you use in your experiments? A. I beg pardon?

Q. How much of the material did you use in your experiments? A. I should say we had an
527 example altogether of twenty pounds, and for each one of these experiments, one in sea water and so on we used two pounds each.

Q. Two pounds each? A. Yes.

Q. How many different experiments did you make? A. There were in our first series six; in our second series I think three.

Q. Whereabouts did you get the sea water that you used? A. That I received from Mr. Sprague.

Q. Did you make an analysis of the sea water before you used it? A. I did not.

Q. When did you commence your tests? A.
528 About the middle of February.

Q. 1922? A. That is the year, I think; yes, 1922.

Q. Have you ever been engaged in the manufacture of anything out of citrate of lime? A. No, sir.

Q. Have you ever used it commercially? A. No, sir.

Q. Do you know what it is used for commercially? A. Yes.

Q. What, may I ask? A. It is used medicinally somewhat; it is used in flavoring work; it is used

in calico printing. Those are some of the uses. 529

Q. Printing? A. Calico printing, yes.

Q. For medicinal purposes a C.P. product is required, is it not, meaning chemically pure? A. There is some controversy among chemists as to what "C.P." means.

Q. Chemically pure. What does the U.S.P. require? A. I am not familiar with the requirements of the U.S.P. They are not any greater, I think, than would be called for in what we call analyzed chemicals. There is no such thing as a chemically pure chemical.

Q. It is a chemically pure citrate of lime that is required for medicinal uses? A. U.S.P. re- 530 quirement?

Q. The U.S.P. requires a chemically pure product, does it not? A. There is no such thing as a chemically pure product.

Q. The U.S.P. refers to a chemically pure product, does it not? You know that. A. Not necessarily, no.

Q. What? A. In the strict sense of the word there is no such thing as a chemically pure product.

Q. To get away from theoretical possibilities, is there not commonly known a chemically pure 531 citrate of lime? A. Yes.

Q. And that is what is required for medicinal uses of citrate of lime, is it not? A. I presume so.

Q. Professor, you say that there is no such thing as a chemically pure product of any kind? A. We think so.

Q. For flavoring purposes what kind of citrate of lime is required? Chemically pure, or may there be some impurities in it? A. I should think there the necessity for the same degree of purity

532 as is required for medicinal purposes would not be necessary.

Q. For printing calicoes citrate of lime may be used which is not so pure as that which is required for U.S.P. purposes; is not that so? A. I am not qualified to answer. There may be sometimes dyes that are used that are very sensitive to the impurities, and I am not sure on that point, but in my judgment it would be that it might not be necessary to have it quite as pure in that case as in the other two cases.

Q. After you had subjected the citrate of lime to sea water for three weeks, just tell me what
533 properties you found in it? A. Well, I have read what happened. Beginning with the end of the first day an evolution of gas took place which we assumed to be carbon dioxide and a scum formed on the surface. This action continued for a period of three weeks and when examined at the end of three weeks we found that the action had ceased, the evolution of gas had apparently stopped. There had been a change in color from the color of sea water to black in all cases. That will cover up to three weeks.

Q. Did you make a strict analysis of this stuff
534 at the end of three weeks? A. We determined the amount of citric acid.

Q. That is all? A. We determined also the amount of chloride present due to contamination by sea water.

Q. How much salt did you find present at the end of three weeks? A. The amount of salt, it varied from the pure salt water as one would expect being lodged there, from 1.6 per cent. decreasing down to the No. 6 sample which was 50 per cent. sea water and 50 per cent. bilge water,

1.26 per cent. That is calculated on the chlorine, not as salt. 535

Q. Now, then, at the end of two months what was the per cent. of salt? A. The percentage of salt did not increase.

Q. What was it; I don't care whether it increased or not? A. The same figure, 1.6 and 1.26.

Q. That is precisely the same? A. Yes.

Q. Is that in spite of the fact that the material was immersed on three different occasions? A. All in the same liquid. On these three different occasions the liquid was not changed.

Q. You immersed it on each occasion in the same liquid? A. Yes. 536

Q. When you drew the liquid off on the first occasion why did you not substitute fresh liquid so as to see how much the salt would go in on these different immersions or how much foreign matter? A. That is to take the bags out of the water and then substitute the fresh salt water?

Q. No, dip it into other salt water. You did not do that, did you? A. No; it would not change the content of it.

Q. What content? A. The content of chlorine, I feel sure.

Q. It would change the content of salt if it was salt water? A. No. 537

Q. How could it help but do it? A. In my judgment, no.

Q. Now, there is salt in all salt water, is there not? A. Yes.

Q. The first immersion of this citrate of lime in salt water would add a certain percentage of salt to the citrate of lime, would it not? A. Well, the salt water naturally goes into the citrate of lime. The salt does not come out as solid as the citrate of lime, but it is just like a sponge

538 soaked up with salt water. If you take a sponge and soak it up in salt water and then take it out in another beaker, you are not going to get any salt in there.

Q. Is it not a fact that the more different kinds of water a material is subject to the more apt you are to get a different result than if you immersed the same product repeatedly in precisely the same water? A. The question is not specific enough for me to answer.

Q. What? A. The question is not specific enough for me to answer.

539 Q. At any rate you conducted no tests with any other water than that in which the material was originally immersed? A. No.

Q. Did you take into consideration in any of your tests the saturation of the water? A. By that you mean the amount of salt dissolved in the sea water?

Q. No; the loss of quantity of citrate of lime. A. I don't understand your question.

Q. You weighed the citrate of lime before you immersed it in water? A. Yes.

Q. After you drew the water off did you weigh the residue? A. Do you mean at the end of three

540 weeks?

Q. Yes. A. I believe we did. I cannot decisively say yes or no on that.

Q. Have you your detailed report or detailed figures of what you did here? A. Not on that point. I can say this, that the bulk of the material appeared to be approximately the same.

Q. There would be some dissolving of the citrate of lime on the first immersion, would there not? A. A very small amount.

Q. It would be a saturated solution, would it not? A. Of citrate of lime? I beg your pardon;

the chances are that the liquid out of the mass would be saturated. I question whether without constant stirring you would get saturation except over a long period of time. 541

Q. What would you say a long period of time is? A. That varies with different substances; in some cases it takes a few hours and in some cases it takes years.

Q. We are talking about citrate of lime. A. I cannot answer about citrate of lime.

Q. It is your theory or your testimony as I understand it, that citrate of lime would not suffer any damage after being immersed in the interval between the third day after immersion and three weeks after immersion: is that right? A. Our experiments seem to indicate that. 542

Re-direct examination by Mr. Sprague:

Q. Do you know whether the citrate of lime was well known as a commercial product in the summer of 1920? A. Well known to dealers in citrate of lime and users of citrate of lime. I would venture to say if it is in order that few chemists unless they handled it or experimented with it would have known of the way in which calcium citrate decomposes due to bacteriological action. 543

Re-cross examination by Mr. Carpenter:

Q. Is it not a fact that practically all the citrate of lime which came into this country up to a few years ago came from Italy? A. I do not get your question.

Q. Is it not a fact that practically all citrate of lime was imported here? A. Yes; I believe it has been imported.

544 Q. It was well known it all came from Italy; most of it came from Italy? A. Most. I think there are other sources.

Q. Is it not a fact there were only three people that imported it into this country? A. I do not know.

Q. The Citro Chemical Company and Pfizer and one other, Messrs. Powers, Wakeman & Rosenbaum, of Philadelphia? A. I don't know; it is possible.

Q. Did you go to either one of those three concerns to get any information on which to base your testimony? A. No, sir.

545 Q. Don't you know they have been importing this material for over fifty years? A. No.

Q. You know who those three firms are, don't you? A. I have heard of them.

Q. Do you know what they manufacture? A. Not very specifically.

Q. Do you know that C.P. citrate of lime is manufactured only by Pfizer, the Citro Chemical Company and Powers, Wakeman & Rosengarten? A. No.

Q. Do you know any other manufacturers? A. No.

516

Mr. Carpenter: May I ask Dr. Simmons where he got the sample of citrate of lime from?

Mr. Sprague: I will state that I produced it for him. I bought it from Mr. May, who is here in Court. I will also say that I have the affidavit of the master of the *Willhilo* that he secured this sea water at sea at a certain latitude and longitude on a certain day and delivered it to

Mr. Dwyer. Mr. Dwyer will testify to de- 547
livering it to me if that is necessary.

Mr. Carpenter: All right.

Mr. Sprague: May I offer this affidavit in evidence, then?

The Court: Yes.

(Received in evidence and marked Exhibit C-4.)

F. PORTER GORE, called as a witness in behalf of the claimant and, being first duly sworn, testi- 548
fies as follows:

Direct examination by Mr. Sprague:

Q. What is your business? A. Average adjuster.

Q. With what concern? A. Francis C. Carr & Company.

Q. Do you know anything about a general average adjustment on the *Willdomino* in August of 1920? A. I was requested by the owner to prepare a general average statement. The firm at that time was Rogers & Carr. 549

Q. Did you in the regular course of business obtain average bonds from the shippers for the cargo on this ship? A. From the consignees.

A. From the consignees.

Q. Are these two papers that I show you such average bonds or agreements? A. Yes; that is the usual form.

Q. Are those duplicates or are they different documents? A. Those are duplicates.

Q. Signed by the same person? A. Signed by the same person. There are duplicates because

550 there are two insurance companies who insured the cargo.

Q. I notice these are dated the 9th day of August, 1920. A. That is right.

Q. Is that the date they were executed? A. Yes.

Q. You produced these from your files? A. Just took them out of my files.

Q. These were taken in the ordinary course of business?

Mr. Carpenter: I object to that as immaterial.

551 The Court: What is the purpose?

Mr. Sprague: The purpose is that it shows on August 9th that Charles Pfizer knew that this ship had been damaged and the cargo had been damaged and made an agreement, signed general average with the average adjusters to pay his share of the general average. It shows clearly that he had notice at that time of the damage.

The Court: For the purpose of notice only?

Mr. Sprague: For the purpose of notice

552 only, yes.

Mr. Carpenter: Is it your idea to prove by this that Pfizer had any knowledge that his cargo was injured at this time or just the ship?

Mr. Sprague: He had notice that the ship had been injured, which was notice that the cargo might have been injured.

The Court: Counsel may introduce it in his effort to prove notice.

(The papers were received in evidence and marked Exhibits C-5 and C-6.)

Q. Did you also receive in the same connection these papers signed by the Star Insurance Company of America, the Queen Insurance Company and the Switzerland Insurance Company? A. Yes. That average agreement we only consider half of the security. They are backed up by the guarantee of the insurance company who insures the shipper. 553

Mr. Sprague: Perhaps we might offer this in evidence.

Mr. Carpenter: I object to it as immaterial.

The Court: I will admit it. 554

(Received in evidence and marked Exhibit C-7.)

Q. Did you obtain similar documents from the Citro Chemical Company, general average bonds and agreements? A. I think we did. I have not looked into the file particularly about that. It is our custom to take security on all the cargo.

Q. Why did you not bring those, too, this morning? Did not the subpoena call for them? A. It just said Pfizer.

Q. But your recollection is that you had some bonds from the Citro Chemical Company? A. Yes; from all the consignees. This is two years ago. 555

Q. What is the custom in the event a ship is damaged and you are asked to make up a general average statement? A. The first step is to take security from the consignees of the cargo before it is delivered to secure their proportion of the general average charges and expenses.

556 Q. And it was in connection with this first step that you obtained the documents? A. Yes.

Q. Will you after you leave us please telephone to the office and verify your recollection about having similar documents from the Citro Chemical Company? A. Yes; I will do that.

Cross examination by Mr. Carpenter:

Q. Did you take a deposit from any of these consignees at the same time? A. If the shipment is insured in this way——

Q. I just asked you. Did you do it? A. No.

557 Q. You are the man that actually secured these signatures? A. Yes.

Q. At the time that you secured them did you yourself know that this cargo of citrate of lime had been damaged? A. No.

Q. Had you been informed by anybody? A. No.

Q. When did you first learn that this citrate of lime had been damaged to any extent whatsoever? A. The cargo surveyor reported to me.

Q. How long after you obtained these bonds or agreements did you learn that? A. I could not

558 name the exact date. It was soon after the vessel arrived; that is——

Q. Did you know that this vessel arrived a week before those agreements were signed?

Mr. Sprague: Not a week.

Mr. Carpenter: August 7th.

Mr. Sprague: And this date is August 10th?

Mr. Carpenter: August 14th, is it not?

Mr. Sprague: August 10th.

Mr. Carpenter: I thought I saw the date the 14th here somewheres.

F. Porter Gore—for Claimant—Cross.

Q. I would like to ask you this question. You are a general average adjuster? A. Yes. 559

Q. And specialize in general average? A. Yes.

Q. If the owner in order to get a cargo out of a hold that is full of water at destination, if the vessel owner in order to get out the cargo from the hold that was full of water, the water coming in through the bilge, had to temporarily repair the vessel in order to get out that cargo, who would have borne the cost of the temporary repairs?

Mr. Sprague. I object to that as improper cross examination. 560

Mr. Carpenter: This follows some testimony yesterday given on behalf of the claimant that that would have been the general average.

Mr. Sprague: This is not cross examination.

Mr. Carpenter: I will make him my own witness for that purpose.

The Court: All right.

A. I would not want to answer that question. Temporary repairs are a very technical point.

Q. Assuming a vessel is damaged through colliding with a reef, and water gets into a hold of the vessel and damages the cargo in the hold, and the vessel arrives at destination, and thereafter to get out the damaged cargo without further loss, the owner causes temporary repairs to be made and then the water is pumped out and the cargo taken out, upon whom falls the expense of making the temporary repairs? A. I would say the temporary repairs would be allowed in general average. 561

562 Q. In general average? A. I think so.

Q. You say it is a highly technical point, however? A. It is a highly technical point, yes.

Q. Suppose the other cargo has been discharged first and leaving only the damaged cargo in the hold with water, would that make any difference? A. Will you say that again?

Q. Assuming that the general cargo which was not damaged had been unloaded first and then the temporary repairs were made by the owners to get out the damaged cargo, would that make any difference in your answer? A. The balance of the ship has been discharged?

563 Q. Yes. A. And these repairs are effected solely for the purpose of discharging cargo?

Q. Yes. A. No; I would not consider that being loaded in general average.

Q. That would be a charge against whom? A. It would seem to be a special charge of freight for discharging cargo.

FRANK L. MAY, called as a witness in behalf of the claimant and, being first duly sworn, testifies as follows:

564 *Direct examination by Mr. Sprague:*

Q. Mr. May, what is your occupation? A. Chemist.

Q. And what are your qualifications as a chemist? A. I graduated in chemistry in 1904 from the Case School of Applied Science in Cleveland, Ohio.

Q. Since that time have you been engaged in the chemical business? A. Practically all that time.

Q. In October, 1920, did you buy this salvage from the *Willdomino?* A. I did. 565

Q. You reconditioned it, did you? A. That I refuse to say without specific instructions from the Judge.

Q. You have been subpoenaed here? A. I beg pardon?

Q. You have been subpoenaed to be here? A. I have.

Q. Will you state whether you found out in connection with this product as to when the damage took place? A. No, I have not.

Q. Can you state when the damage did take place in your opinion as an expert? A. The damage took place since the cargo was wet as far as that is concerned. I am not testifying as an expert; I am simply giving my opinion. 566

Q. The facts show that this vessel stranded on the 24th of July off Nova Scotia; that three days later she made her way into Halifax; that twenty minutes after stranding there was twenty feet of water in the hold where this commodity was and that the commodity was covered with water at that time within twenty minutes. Would you say that the time she reached Halifax the damage had been done in your opinion? 567

Mr. Carpenter: This man is not called as an expert.

The Court: I suppose it will be conceded by everybody that the damage had been done at that time, some damage?

Mr. Carpenter: We will concede that.

The Witness: I am willing to answer that.

The Court: All right; we will hear the answer.

568 A. As a manufacturer of various kind of chemicals if a cargo of that kind was offered to me——

The Court: No. We are getting away from the question.

The Witness: If the specific cargo was offered to me after it had been wet I would refuse it as not being a good delivery.

The Court: Strike that out; we are not concerned with what you would do at all.

(The question was repeated, as follows: Would you say at the time she reached Halifax the damage had been done in your
569 opinion?)

A. Yes.

By Mr. Sprague:

Q. Is there any place in Halifax to recondition this commodity in that condition? A. Not as far as I know.

Q. Are there few or many plants for reconditioning such commodity? A. In the United States?

Q. Yes. A. There are few as far as I know.
570 Q. You know the ones that there are, do you not? A. I know all of them around New York, Philadelphia and Baltimore.

Q. And there are very few? A. There are very few that would do it.

Q. About a year ago, Mr. May, did you sell me a package of about twenty pounds of citrate of lime? A. Yes.

Q. Was that the ordinary commercial product? A. It was.

Q. Of the usual character? A. Yes.

Cross examination by Mr. Carpenter: 571

Q. Where did you get that citrate that you sold to Mr. Sprague? A. I got it from the ordinary channels of trade. It is a standard product.

Q. Did you get it from Pfizer? A. I did.

Q. You say you bought the damaged citrate of lime? A. Yes.

Q. What did you pay to the owners of this vessel for the citrate of lime which you bought damaged? A. I cannot tell you that exactly; I have not any records.

Q. In round numbers? A. In the neighborhood of $3,000. I would not say whether it was that 572
exactly.

Q. Did you pay any freight in addition to that or is that the total amount you paid? A. That is the total amount we paid; I don't remember the exact amount.

Q. Did you pay any duty in addition to that? A. No.

Q. The gross amount was $3,000? A. About.

Mr. Sprague: I am willing to stipulate what the amount is. I can look up my files and get it.

The Witness: I cannot tell you the exact 573
amount because I do not know.

WILLIAM J. LIESEGANG, called as a witness in behalf of the claimant and, being first duly sworn, testifies as follows:

Direct examination by Mr. Sprague:

Q. Mr. Liesegang, what is your occupation, please? A. Cargo surveyor.

574 Q. Employed with what firm? A. Messrs. Koehler, Kemp & Koehler.

Q. And how long have you been in that occupation? A. About fifteen years.

Q. Do you survey a great many cargoes during that time? A. A great many.

Q. In August, 1920, were you called in to survey the cargo of the *Willdomino?* A. Yes.

Q. By whom? A. We were called in by two people. We were called in by the general average adjusters to survey for the general average purposes the damage due to general average.

575 Q. That is Mr. Carr's firm? A. Yes.

Q. Rogers & Carr? A. Yes. And later we were called in by the underwriters to survey the cargo of the shipment of Charles Pfizer & Company.

Q. So you were employed by the underwriters on the citrate of lime; is that correct? A. Yes.

Q. When did you first go aboard the *Willdomino?* A. For general average purposes—I will have to look at my papers.

Q. Yes. A. (Witness refers to papers). August 9th.

Q. Where was she then? A. At Jersey City,
576 Pier C.

Q. Did you examine hold No. 1 at all or the contents of hold No. 1? A. No. That was just a question of lemons. They were being discharged, and we got the story from the captain and the superintendent and examined the lemons as they were being discharged.

Q. When if at all did you examine the citrate of lime of the cargo in hold No. 1? A. Not until after she got up to 134th Street.

Q. And that was about what time, Mr. Liese-

gang? A. The first time I went up there was August 20th. 577

Q. Yes. A. But she was then lying up at a pier where she could not discharge and she had to be removed to another pier. I then went on the 23d in company with a representative of Pfizer and also another surveyor; that was on the 23d.

Q. With a representative of Pfizer? A. Yes.

Q. What did you do then when you went with the representative of Pfizer? A. Went down in the No. 1 hold.

Q. What did you do there? A. Just looked to see what it looked like. She was discharging at 578
the dock cork wood, and there remained in the vessel in that No. 1 hold this shipment of citrate and bales of cork wood. We got down as far as we could go; that was about the top tier of the casks, and stood on them and took a general survey of them, and I managed to open up a cask sufficient to get a little sample out of it to find out the substance.

Q. You took a sample at that time? A. Yes.

Q. What did you do with that sample? A. I don't know. The three of us examined it and looked at it, and as we were not much acquainted 579
with the article, that is at least I was not, the representative of Pfizer, he knew more about it of course than I did, he said from their reports that they got they did not think it could be used, but they were going to take samples and determine just what could be done with it if anything.

Q. Did he say that it was a loss, a total loss? A. Well, that was the understanding, but it had not been decided until further tests could be made. Afterwards samples were drawn.

580 Q. Did you not send samples to the chemists of your own at that time? A. Yes; we had samples drawn.

Q. When were you employed by the consignees or their underwriters? A. Two or three days later; about August 12th.

Q. From that time on you were in their employ also? A. Yes; but there was nothing to be done because the cargo was not out; that is that shipment was not out.

Q. Did you make a report of that to the consignees and the underwriters? A. I called up Pfizer and had a general talk with him.

581 Q. Told him about this cargo being in that condition? A. Yes.

Q. And being in this hold covered with water? A. Yes.

Q. What about the Citro Corporation? A. We had nothing to do with them.

Q. You were not employed by the Citro Chemical Company? A. No.

Q. Were you employed by their underwriters at all? A. No.

Q. Have you your report with you that you made on this? A. Yes.

582 Q. And this was signed by Koehler, Kemp & Koehler? A. Yes.

Q. This report was made to the average adjusters, Messrs. Rogers & Carr? A. Yes.

Q. Did you make any report in writing to Pfizer & Company? A. Not to Pfizer; to the underwriters.

Q. Have you got that report with you? A. Yes; there are two of them.

Q. Copies are they? A. Yes. Are these to be retained, because we have no other copies in our office?

Q. You have no other copies? A. No. 583

Mr. Sprague: I offer in evidence these copies of the report to Pfizer & Company.

Mr. Carpenter: I object to it as immaterial and irrelevant because it is not the testimony of the witness; it is the report he made at that time; it is hearsay.

The Court: What is the purpose of it?

Mr. Sprague: The purpose is to show that they knew on August 11th, I believe, or soon thereafter of the damage.

The Court: Who do you mean by "they?" 584

Mr. Sprague: Pfizer & Company, and that they made tests of the citrate of lime and decided that it would be abandoned because it was not worth a reprocessing.

The Court: For the purpose of showing notice only I will admit it.

Mr. Sprague: I think it should be binding against them as the acts of their agent here, as he testified he was employed by them.

The Court: That is his testimony you see. We have his testimony. We have the 585
facts of his testimony, what he did as their agent at the same time. Now we are letting a written document go in. I don't think it is proper to have the contents go in because the witness is on the stand. He may testify regarding the time of notice. I will let it go in.

Mr. Sprague: Then I will have it marked for identification and examine him.

(Marked Exhibit C-8, for Identification.)

586 *By Mr. Sprague:*

Q. This Exhibit C-8, for Identification, your letter of September 16th to Pfizer & Company, you learned on August 10th, did you, that this cargo was stowed in No. 1 lower hold? A. No, I did not. That is when we got our notice of damage from the underwriters.

Q. The letter seems to state that. A. Yes, but it don't state we learned it on that date. I don't remember just what date we did learn it. We learned it was stowed at No. 1 hold. We got the notice on the 10th.

587 Q. You proceeded on August 10th to Pier C, Jersey City? A. It is on there.

Q. You say, "Being advised of the damage on the above shipment we proceeded August 10th to Pier C, Jersey City. We learned this shipment was stowed in No. 1 lower hold." You learned it at that time? A. I would not say I learned it on August 10th because we had been going there. We went there before that time really for the average adjusters. We went there quite a number of times.

Q. This is the second paragraph.

588

Mr. Carpenter: That is hearsay, anyway.

Q. You knew that No. 1 hold was filled with water when you went over there on August 10th? A. Yes. I got that from the captain.

Q. You say the vessel was down to her head? A. I can't remember.

Q. Did you not go in betweendecks of the No. 1 hold? A. I did not go in the hold at all until some time later. There was some question came up about the lemons.

Q. On August 23d in company with a representative of Pfizer & Company you went aboard the steamer and you went into the hold? A. Yes. 589

Q. That you testify? A. Yes.

Q. Messrs. Pfizer & Company's representative at that time did not consider the citrate to be of any value? A. As far as I remember.

Q. That is correct? A. Yes.

Q. So stated? A. They did not think there was any value, although if I remember it they were to make further tests after they got the samples.

Q. And the agents of the steamship company stated it was impossible to discharge the casks with the hold half full of water? A. Yes. 590

Q. Impossible to get the water out of the compartment? A. Yes.

Q. You then took samples of the citrate and submitted those to a chemist? A. I did not take the samples. We had the samples taken.

Q. At that time? A. Not at that time; I think a day or two later.

Q. "Samples of the citrate drawn and submitted them to a chemist and are now awaiting his report as to quantity remaining in order to determine whether they are of sufficient value to warrant processing." A. Yes. 591

Mr. Carpenter: What is the date of that report?

Mr. Sprague: September 16th.

Q. You took this a day or two after August 23rd? A. Yes. We had a cooper go up there and bore the casks.

Q. That was when it was up at 135th Street, New York? A. Yes.

592 Q. You had a report from your chemists and you sent a copy of that to the representatives of the underwriters of this citrate of lime? A. Yes.

Q. That is not contained here? A. No, I don't think it is.

Q. Messrs. Pfizer & Company stated that this analysis of the chemists agreed with their own tests and based on their experience it would not warrant the processing of the citrate and they therefore would have to abandon the shipment? A. Yes.

Q. That is correct, is it? A. Yes.

593 Q. You tried to interest other firms to purchase it, furnishing them with samples? A. Yes.

Q. And with a copy of the certificate, but you could not get them interested? A. Not to make any fair offer for it.

Q. And Pfizer therefore abandoned to the underwriters? A. Yes.

Q. Do you know whether there was any cargo surveyor representing the Citro Chemical Company on this matter? A. The underwriters had their own surveyor on it.

Q. Who was that surveyor? A. Mr. F. C. Rodman.

594 Q. Where is he? A. He is connected with the Insurance Company of North America.

Q. Mr. Rodman? A. Yes.

Q. F. C. Rodman? A. Yes; he was employed by them direct.

Cross examination by Mr. Carpenter:

Q. Captain, you are an independent surveyor, are you? A. Yes.

Q. And on this job you were first called in by whom? A. Messrs. Rogers & Carr.

Q. And they were who? A. They were the ad- 595
justers, the general average adjusters.

Q. And then later on you were called in by the underwriters? A. Yes.

Q. You were at no time employed by Pfizer direct? A. No.

Q. Nor by the Citro Chemical Company direct? A. No.

Q. Now, then, the first day you went on board this steamer with the representative of Pfizer & Company was August 23rd? A. August 23rd.

Q. Before that you had not had any dealings with them at all, had you? A. Only over the tele
phone. 596

Q. You went on August 20th and could not see the stuff? A. No, sir.

Q. Is it not a fact that before that date the samples were down so that you could not even look in the hold? A. No, that is not so. They discharged some cargo out of No. 1 at Jersey City.

Q. Do you remember it? A. Yes.

Q. Are you sure? A. Well, I would not say positively, but that is my impression that the cargo was discharged out of there, some lemons, or something.

Q. You think there were lemons in No. 1 hold? 597
A. I think so; I am not positive.

Q. Will you give us the date when you first had a look into No. 1 hold? A. I could not give you the date; it was some time while she was lying at Jersey City. There was not much I could see. About all I could see was cork wood.

Q. You did on August 23rd get on to one of the barrels, did you? A. Yes.

Q. Was the barrel in good condition? A. As

598 far as the package was concerned, yes. It was large casks.

Q. The casks were in good condition? A. Yes.

Q. At that time? A. Yes.

Q. And you opened the top of one of them? A. The top tier was half filled—if I remember right there were two full tiers and half a tier.

Q. Were there not four tiers? A. It may be. I would not be positive. The top tier was a part tier and I pried the head open sufficient to take out with a stick a little of the citrate.

Q. Did you find when you opened the barrel
599 that it was partly between the citrate and the side of the barrel, the lining in the barrel? A. I would not say positively, but I think so.

Q. And then over the top there was a layer of paper, over the top? A. As I understand it, it was a sort of a paper lining put around the package.

Mr. Sprague: I move to strike out what he understands, unless he is testifying from his recollection.

The Witness: That is my recollection.

600 Q. You first had to pry open the lid of the cask and then was the paper wet or dry? A. Wet.

Q. You had no trouble going through that? A. No.

Q. Then you got out some of the material? A. Yes.

Q. Could you tell at that time from your examination of the casks whether they had been new when they were shipped? A. No. If I was asked what my opinion was I would say they were new when shipped.

Q. At that time you took some samples for

chemical analysis? A. Not for a chemical analysis. 601

Q. Have you ever handled any damaged citrate of lime before that? A. I think we had one or two cases in the office.

Q. You yourself? A. Yes. One case if I remember right, but there was not much involved in it.

Q. You only felt of it the first day; that is August 23rd? A. We took a sample out.

Q. When was it you took your sample for chemical analysis? A. I gave an order to a cooper to get a sample. I don't remember what day. It was two or three days later I imagine, 602 maybe three or four days later, maybe the 27th.

Q. When you wrote this report of September the 16th, you had not received the chemical analysis, the report from the chemist to which you had sent your sample? A. I did not receive his report with it, no.

Q. You did not know whether there was any value there or not at that time?

Mr. Sprague: I object to that because he stated that Pfizer told him, and that is notice that there was not any value.

The Court: Overruled. 603

A. No. I did not know.

Q. In fact you reported you feared there would be little value if any? A. Yes.

Q. Then if after September 16th you had received a report from the chemist to which you submitted this matter when did you get your report if you can tell? A. Does not the supplementary report tell?

604 Q. Be careful about it; I want to get the date if I can. A. I have not got it here so I do not know.

Q. When was your supplemental report dated? A. January 7th.

Q. What year? A. 1921.

Q. Had you received the chemist's report by that time? A. Yes.

Q. How long before, do you know? A. I don't know.

Q. When you went on this vessel and examined the citrate on August 23rd and then again two or three days later, was any water in the hold?

605 A. I only examined it August 23rd.

Q. August 23rd? A. Yes. All but the top tier was submerged. The top tier of casks were not submerged.

Q. The top tier was not submerged? A. No.

Q. From that examination you could not tell whether there were two, three or four tiers of barrels or casks? A. No. My impression is that there were three tiers all told.

Q. You were on the top tier? A. The top tier was a half a tier and the tier underneath it was just awash so that we could get around it.

606 Q. The water came to the top? A. If you walked along to the top it was just awash. This was up in 134th Street.

Q. New York City? A. Yes.

Q. The cargo of lemons had been discharged? A. Yes.

Q. Were they discharging cargo at 134th Street? A. Yes.

Q. What? A. Cork wood.

Q. All the time she was at 134th Street? A. I don't know how long she was there. She was discharging the day I was there.

Q. Did you go through the vessel again at Tietjen & Lang's? A. No. 607

Q. Do you know that she went to Tietjen & Lang's? A. No.

Re-direct examination by Mr. Sprague:

Q. The cork wood they were discharging at 134th Street came right off the top of these casks? A. Floating around in the hold.

Q. In the same hold? A. Yes.

Q. Of course you could not get at those casks until after the cargo of cork wood was out? A. No.

608

Q. Did you examine more than the one barrel at this time, the first barrel? A. I only got samples out of one cask.

Q. Did you walk all around the hold? A. No, you could not. There was only certain places you could walk.

Q. Did you look at all the barrels in the top tier? A. Yes.

Q. Of course you could not look at those that were under the water? A. No.

Q. You are not sure as I take it whether there was any paper lining inside those casks? A. My impression is there was paper lining, but I am not sure. 609

By Mr. Carpenter:

Q. One question I might ask. Did you find any broken casks when you were in the hold after the 23rd of August? A. No.

By Mr. Sprague:

Q. You did not see any of the casks that were under the water at all? A. No, sir.

CHARLES MARRA, called as a witness in behalf
610 of the claimant and, being first duly sworn, testifies as follows:

Direct examination by Mr. Barrett:

Q. What is your business, Mr. Marra? A. Stevedore.

Q. With what company are you connected now? A. I am connected with the Liberty Stevedore Company.

Q. How long have you been in the stevedoring business? A. Twenty-five years.

Q. Did you ever discharge any cargo in dry
611 dock from a vessel? A. No, sir.

Q. Did you ever discharge any cargo from underneath water, Mr. Marra, while it was underneath water in a vessel? A. No, sir.

Q. Assuming that heavy casks, weighing from five hundred to fifteen hundred pounds were in hold No. 1 of a vessel and that all except the very top layer of casks was covered with water, the total depth of water being eighteen to twenty-one feet in that hold, would you say that it was a practical matter to discharge that cargo while the water was still in the hold? A. No, sir; not if
612 the cargo was under the water.

Q. Did you ever discharge such a cargo as that? A. No, sir.

Q. Is it possible to discharge such a cargo as that under those circumstances? A. Well, if you hire a diver you can discharge it.

Q. Did you ever hear of divers being hired to discharge such a cargo as I have described to you? A. No, sir.

Q. Did you ever employ any divers to discharge cargo for you? A. No; we never employed any.

Q. Did you ever know of a job in which divers were employed to discharge any such cargo? A. Never seen one. 613

Q. Would you have undertaken to discharge such a cargo yourself? A. I would have if the ship was in drydock and they took the water out.

Q. Could you discharge in drydock? A. It could not be discharged in drydock. If the drydock people will allow us to discharge.

Q. How would you take such a job if the drydock people would allow you; would you take it on a rate basis? A. I could not figure what it would cost. I would say on cost plus. That is the only way I would figure it. 614

Q. What would you have to do? Are you familiar with Tietjen & Lang's, their drydock? A. Yes.

Q. Are you familiar with their floating drydocks there? A. I have seen them several times.

Q. Would it be possible in your opinion to discharge cargo from a vessel while in one of the floating drydocks? A. It is a hard matter to say, but it could be discharged providing they allow you to do it.

Q. How would you have to discharge that cargo? A. You would have to go to a lot of trouble, you would have big stages, something like that, which would take you three times as long as it would in any other way. 615

Q. Just from the fact that it was in drydock it would take you three times as long as an ordinary job? A. Yes.

Q. Have you got any idea what the cost would be? A. I don't know. I imagine it would be at least two or three times as much as it would be

616 if I do it cost plus and discharge it alongside of a pier.

Cross examination by Mr. Carpenter:

Q. You are a stevedore now for the Williams Steamship Company, are you? A. No, sir. I am stevedore of the United States Army Transport now.

Q. Don't you do work for the Williams Steamship Company? A. No, sir.

Q. Did you ever do any work for them? A. I know the firm, but I never done any work for
617 them.

Q. Did you ever discharge cargo from a vessel that temporary repairs were made? A. If there was no water in the hold, yes. After taking the water out of the hold many times we discharge cargo.

Q. You have done that all the time? A. Not all the time, several times.

Q. That is by building planks across the hold of the vessel and letting the water out and caulking it up? A. Pump the water out and have the cargo dry so that we can send men in the hold to
618 handle the cargo.

Q. It is possible to get it out then? A. Then you can.

Q. That is done every once in a while, is it not? A. I don't know if it is done every once in a while. I have done it once where they pumped the water out of the hold, but it was only half a foot in the hold. We were taking the cargo alongside of a pier.

Q. Did you ever work with a diver? A. No. This was a longshoreman. You don't need no diver on that.

NOEL P. PILCHER, a witness called in behalf of the claimant and, being first duly sworn, testifies as follows: 619

Direct examination by Mr. Sprague:

Q. Captain Pilcher, what is your occupation? A. Inspector and surveyor of cargoes.

Q. How long have you followed that occupation? A. Since 1916.

Q. Largely in the Port of New York? A. In the Port of New York.

Q. For what companies have you acted and are you acting as inspector of cargoes? A. The Cunard Line, the Anchor Line, the Swedish-American, United American, Furniss Withey, the Keller, Oriental Line, Booth, Alfred Holt, and many others. 620

Q. Are you a master mariner also? A. I also hold an extra master's certificate.

Q. How long have you held that? A. Since 1892.

Q. How long have you followed the sea? A. Twenty-five years.

Q. How much of the time as master? A. Eight.

Q. Both sail and steam? A. I was never master of sail. Chief officer in sail when I entered the steam. 621

Q. What do your duties consist of in surveying cargoes? A. To go on board the day of arrival to examine the vessel's hatches, tarpaulins, ventilators, and after the hatches are opened I visit the vessel daily until the completion of discharge, going through the holds, report to the steamship company's agents of the condition of the cargo, and any damage if there is any.

622 Q. In connection with this work have you come in touch with the stowage of citrate of lime, and if so, in what ports? A. I have seen citrate of lime come into the Port of New York in ships from Italy on the Anchor Line and the Lloyd Bordeaux. I rather imagine, although I cannot say definitely, it has come in on some of the Spanish lines, the Jose Tiers.

Q. The testimony is that in this case five hundred odd barrels or casks of citrate of lime were stowed in No. 1 hold of the *Willdomino*. That there was other cargo stowed in other of the holds. Would you say that such a stowage was proper?

623 A. Yes.

Q. There is nothing against the No. 1 place as being a place for stowing casked cargo or any other? A. Not at all.

Q. Is it as good a place to stow as any other hold in the vessel? A. Yes.

Q. Did you ever have any experience with citrate of lime which was damaged? A. I cannot recall any with the exception of one of the Jose Taya ships, I think it was at Pier 32, and she had a cargo——

624 Mr. Carpenter. I object. This is hearsay and immaterial. We are only concerned with this particular ship and the way they handled it.

Mr. Sprague: It may be immaterial, but I do not think it is hearsay.

The Court: I will sustain the objection.

Q. In this case, the vessel on the 24th day of July struck a reef off Nova Scotia and later went into Halifax and later was brought down to New York in July, arrived down here in New

York on the 7th of August, which was Saturday, and commenced discharging on Monday. There was twenty feet of water, according to the testimony, in this No. 1 hold where these casks of citrate of lime were stowed. 625

Have you ever heard in your experience of anyone discharging such a cargo when the water is in the hold. The casks, I might say, held anywhere from five hundred to fifteen hundred pounds each? A. I have seen cargoes discharged from other compartments of such a vessel, but I have never seen, neither do I know from actual knowledge, of casks from below the water being discharged. 626

Q. Would you consider it commercially feasible to discharge such a cargo of casks under water? A. No.

Mr. Carpenter: I object unless counsel makes known what he means by commercially feasible.

The Court: Just eliminate the words "commercially feasible."

Mr. Sprague: Feasible.

Q. Would your answer be the same after eliminating the word "commercially"? A. Yes; it would be the same. 627

Q. It would be an impracticable way of doing things? A. Yes.

Q. Can that be done without divers? A. I don't think any stevedore would do it. You would have to employ divers.

Q. Have you ever known of any divers discharging cargoes of this character in this way? A. No; not as described.

628 Q. Have you ever known of cargoes contained in casks such as this discharged while a vessel was in drydock? A. No.

Q. Would it be possible to do it? A. I don't think you could do it on a floating drydock, and if it was the old type of drydock it could be done provided the dock company were agreeable. It would also be a very expensive and quite a risky operation.

Q. This was a floating drydock. Do you think it could be done here? A. I do not see how they could possibly discharge any cargo.

629 Q. The damage in this case, Captain, consisted of the fore foot of the ship being torn away and the plates being crushed back clear up and under the water-tight bulkhead between the forward peak of the No. 1 hold and into the tanks in the No. 1 hold, so that within twenty minutes after the collision there was twenty feet of water in that hold. In your opinion would it be possible to plank that over in order to take out this cargo which had been under water for say two weeks? A. No.

Cross examination by Mr. Carpenter:

630 Q. Why not? A. I would expect that the commodity would have reached a point of saturation if it was under water for that length of time.

Q. Why would that prevent putting a plank on? A. It would not prevent them putting a patch on, but I do not see what would be gained by putting a patch on in order to get the water from something which probably was saturated.

Q. If the water was out it could be unloaded more easily? A. The water would not be out while the vessel was afloat.

Q. We are talking about putting a patch on a vessel in a drydock after the water has leaked out; that is entirely possible and feasible? A. You could put a patch on, certainly. 631

Q. When you got the patch on that keeps the water out when the vessel is put in water again? A. Yes.

Q. Then the stevedores can unload the cargo of casks? A. Yes.

Q. Did you ever know of that being done in your experience? A. Yes; I have known of cargoes being discharged after the water was out of the hold.

Q. How many times have you known it to be done? A. With citrate of lime, never. 632

Q. Forget about that. We are talking about vessels and patching them. How many times have you known of vessels to have cargo discharged after a patch has been put on so that the water could get out and then the stevedores get to work on them? A. I do not recall any at the moment.

Q. Do you want to recall any or don't you? A. I beg pardon?

Q. Don't you want to recall them? A. I say I don't recall any. I could go through probably 4,000 records in the last four years and find out. 633

Q. Are they not doing that all the time? A. Not so far as I know. That would probably come under the salvage company.

Q. How about the *West Cavanagh?* A. I had nothing to do with the *West Cavanagh.*

Q. Do you know she is being discharged that way? A. It is possible, but I don't know anything about it.

Q. The *West Column?* A. I had nothing to do with the *West Column.*

631 Q. You simply say you don't know of any case where casks filled with citrate of lime have ever been taken out of a vessel when they are under water? A. No, I don't know of any case.

Q. That is as far as you want your testimony to go? A. That is as far as I can speak.

Q. You have known other cargoes to be taken out by divers when the cargo was under water, have you not? A. Not under my own observation or not from my own knowledge.

Q. Did you ever hear of steel rails being unloaded that way? A. I have never seen any.

635 Q. Did you ever hear of divers being used to unload? A. I have heard of divers.

Q. Used to unload cargoes out of holds that had water in them? A. I have never seen it.

Q. Whether you have seen it or not, you are a practical ship man, are you not? A. Yes.

Q. Don't you know that there are occasions when it is practicable and feasible and necessary to use divers to get a cargo out of a hold that has water in it? A. I certainly do. If it is from sunken ships.

Re-direct examination by Mr. Sprague:

636 Q. I understand you to qualify your answer to the last question to be in the case of sunken ships; is that correct? A. Yes. Those things do not come under my observation. They come under salvage companies, which we do not operate for.

Q. Have you ever heard of a case where they have planked over, put a patch on as my friend calls it, where the whole bow of the ship is taken away; have you ever heard of a patch being put

over a bilge like in this case at a port of discharge for the purpose of taking out cargo? A. No, I don't recall any. 637

Q. It makes a difference whether the cargo is coming out at the port of destination or at an intervening port where you have to take it out, does it not? A. Yes.

Q. Very often the patching of the vessel is at an intermediate port so that they can get to the port of destination and deliver their cargo, is it not? A. That is what it would be done for, in order that the vessel might reach the port of destination.

Q. You do not think it would be done at the port of destination in order to get the cargo out? A. No. 638

By Mr. Carpenter:

Q. Did you examine this vessel at Tietjen & Lang's drydock? A. No; I had nothing to do with her.

By Mr. Sprague:

Q. What is the difference in density of the sea water at Tietjen & Lang's drydock and the high sea? A. I could not give it in percentage, but the difference would probably be four inches on the vessel's draft. 639

Q. You would let her go down four inches deeper here? A. Yes.

Q. Than you do in sea water? A. Yes.

Q. That shows there is a much less percentage of salt here? A. Less density of salt.

640 HARRY R. BURNEY, called as a witness in behalf of the claimant and, being first duly sworn, testified as follows:

Direct examination by Mr. Sprague:

Q. Mr. Burney, what is your present occupation? A. Assistant secretary of the Williams Steamship Company.

Q. What was your position in 1920? A. Manager of the inward freight department.

Q. What in your business in that department would that be? A. On inward freight it is my duty whenever a vessel was about to arrive at
641 the Port of New York to send out notices to all consignees advising them of the arrival of the vessel and requesting them to take their cargo. We had printed forms for that purpose and we would take the manifest and address this printed form to each consignee after which we would count the number of cards with the number of shipments, and after which I mailed the whole batch personally.

Q. Did you do that in the case of the *Willdomino?* A. I did, with the assistance of Mr. Rauch, who is my assistant.

642 Q. The consignee on Pfizer's bill of lading was Goldman, Sachs & Company? A. Yes.

Q. You sent out such a notice? A. Yes.

Q. Is that the notice? A. I might explain that in this case we had all the cards made out the usual forms of notice and afterwards the average adjusters, Messrs. Rogers & Carr, notified us that in addition to the usual notice we must attach a typewritten notice of the general average, notifying all consignees to call at the office of the average adjuster and deposit security or get insurance guarantees, and we typewrote as many

of those as were necessary, pasted it on to the particular card which we always used, and instead of sending it by mail, the card, we put it in an envelope and put a two-cent stamp on it because we were afraid that those would be taken off and the post office would not accept the card in this form. 643

Q. How did you get these cards here back again? A. When the parties came in to pay their freight and get the delivery order they surrender their bill of lading and this particular consignee also gave us back the card we sent.

Q. And this name on this card was the consignee named in the Citro Chemical Company's bill of lading? A. Yes. 644

Mr. Sprague: I offer this in evidence.

(Received in evidence and marked Exhibit C-9.)

The Witness: The ship arrived on August 7th, which was a Saturday, and we mailed out all these cards that day, and many people called me up the following Monday and said that they had received the cards and asked questions about what to do. 645

Q. Did you send a similar card to Pfizer & Company? A. I did.

Q. Did you publish any notices in the paper? A. I did. That Saturday after mailing all the cards I called over the phone the Journal of Commerce and directed them to insert in the issues of Monday, Tuesday and Wednesday, August 9th, 10th and 11th, the notice of the vessel having

646 arrived, requesting the consignees to call, and the notice of the general average, with the request to call on the average adjusters and deposit security or get an insurance company guarantee.

Q. Is that a copy of the notice certified by the proper officer of the Journal of Commerce? A. Yes. That is an exact copy of the notice which appeared in the Journal of Commerce, New York City, on August 9th, 10th and 11th, 1920.

Q. That is the one you put in? A. Yes.

Mr. Sprague: I offer that in evidence.

647 (Received in evidence and market Exhibit C-10.)

Q. Did there also appear in the Journal of Commerce of August 9th a notice of the arrival of this vessel? A. Yes. In the issue of the Journal of Commerce of August 9, 1920, they had published this for which we did not pay, an arrival notice of this vessel, which read——

"*Willdomino,* arrived August 7th. B/R. Palermo, June 9th, Messina 11th, Gibraltar 17th, Lisbon 25th, Michaels July 10th, Sidney 23rd, Halifax August 3rd, with merchandise to Williams & Company."

648

Q. On or about September 2nd did you receive a letter from Pfizer & Company, Inc.? A. I did.

Q. Is this the letter (handing witness letter)? A. Yes. This letter was received, I believe the the date after which was dated September 3rd. There is a notice here in my own handwriting.

Mr. Sprague: I offer that in evidence.

(Received in evidence and marked Exhibit C-11.) 649

Q. Did you also on August 26th receive a letter from the Citro Chemical Company, the libellant here? A. Yes. This is the letter shown by our stamp that I received this letter on the following day after its date, to wit: August 27th, 1920.

Mr. Sprague: I offer that in evidence.

(Received in evidence and marked Exhibit C-12.) 650

Q. Suppose shippers made complaint at that time, to whom did they go to make that complaint? A. On inward freight they came to me.

Q. Were any complaints made to you about this cargo not being taken out at once by divers? A. No, sir.

Q. Did either Pfizer or the Citro Chemical Company come to you and demand that it be discharged at once? A. No, sir.

Q. Did they give you any notice before they took it out of this great value or these characteristics that we learn of now for the first time? 651
A. None.

Q. Was there any notice brought to your attention that it was valuable? A. No, sir.

Q. Was there anything said by either of these consignees? A. The first time that they learned it was when they libeled the ship for some tremendous amount of money.

Q. Was there ever at any time by either of the libellants any claim made to you in regard to these cargoes remaining in the hold until the repairs were completed? A. The first notice of

652 any claim were these two letters which you just showed me.

Q. Was there any other notice besides those two? A. I think you will find a memorandum that I showed you this morning that I made of having a conversation with the insurance underwriters on this cargo calling me up and making some statement. I dictated a memorandum of it right after the phone call.

Q. Is this the memorandum? A. Yes. That is a memorandum that I dictated after a phone call on September 2nd.

653 Q. Refreshing your recollection from that memorandum, please state what the phone call was and if it had anything to do with the situation.

Mr. Carpenter: Who was it for?

The Witness: Pfizer & Company, 4731 John. This is dated September 2nd, 1920. This says: "Pfizer & Company, 4731 John, called up re citrate of lime. Said that their underwriters were Bertschmann & Malloy."

Mr. Carpenter: I object to this because
654 that is purely hearsay. If they could show who they were speaking with so that we could look into the matter, but I do not know what this is.

Mr. Sprague: We were not talking to them. They called us up. Said they were Pfizer & Company.

The Witness: I don't know who it was. The person talking said: "This is Pfizer & Company."

Q. What did they say after naming the under-

writers? A. That Mr. Theodore Schmidt of that 655
firm had charge of the matter. They also requested that we return to them the bill of lading that they delivered to us as they were leaving the matter of the citrate of lime to their underwriters. Then it is signed "H. R. B." Those are my initials.

Q. Did you ever have any other conversation with either of these libellants to the best of your knowledge and information now in regard to this matter? A. Certainly none notifying us that it was valuable or requesting us to make any special efforts as to its discharge, or 656
directing us how to discharge it or anything like that. There may have been some one come in and ask for the invoice or something like that, but I do not recollect anything special?

Q. Was there anything said that the cargo had not yet been entirely damaged, and if you hustled it right out with a diver at some outrageous expense that you would be able to save something for them? A. No, sir; absolutely not.

Cross examination by Mr. Carpenter:

Q. You knew before this vessel got to Halifax, 657
did you not, that the No. 1 hold was full of water? A. We did not know that the No. 1 hold was full of water until she arrived at Halifax and the first we knew of what it was, all we knew was that she struck a rock at a place called Canso, and then afterwards our Captain Gilboy went up to Halifax and met the vessel, he gave us the information that the No. 1 hold was full with water.

Q. Did you know what was in the No. 1 hold at that time? A. No, sir. We had no cargo plan; the only thing we had was a manifest.

638 Q. You did not know whose cargo was in the No. 1 hold? A. No sir.

Q. When did you first learn whose cargo was in? A. When the vessel, I should say August 9th. The vessel arrived Saturday, and Mr. Dwyer was in the office Monday. On the 9th I guess he told us what the situation was.

Q. Then for the first time you learned whose cargo was in that hold? A. The first time I learned that this citrate of lime was in the hold.

Q. What did you do when you found out the citrate of lime was in that hold? A. I immediately called up our underwriters, our brokers,
639 Messrs. Rogers & Carr and notified Mr. Gore, in fact, I had notified them right along whenever I received any advice of a damage, I immediately call up our insurance representatives and notify them, and after Mr. Dwyer reported to me what he found I called up our insurance people, Mr. Gore, of Rogers & Carr, and told them just what Mr. Dwyer had told me. I also told them I had sent out on Saturday all of these notices, and also told him that these notices would arrive unless—in fact they are in the Journal of Commerce that morning, and would appear for two
660 other days, and he said, "All right, all these consignees will come in to me, having received their postcards, will come to me for certificates, and do not release any cargo until they bring to you in addition to the bill of lading a check for freight, a certificate from me that they have satisfied the requirements of the general average." I said, "All right."

Q. Did you follow out that instruction to you to the letter? A. Yes. I followed out the instructions right from that day on. People came

in and they surrendered to me their bill of lading. 661

Q. That is your own broker told you that? A. Yes; our own insurance broker.

Q. The man you engaged to get insurance for you? A. That is right.

Q. Did you on August 9th telephone to Pfizer or the Citro Chemical Company and tell them that their cargo was under water? A. I did not.

Q. Did you at any time call them up and tell them their cargo was under water? A. I mailed them notices.

Q. This notice here? A. Yes. 662

Q. Is that the only notice you ever sent them? A. That is the only notice I ever sent them.

Q. You are now complaining that they did not come and tell you this was valuable stuff, are you? A. Yes.

Q. You think they should have done it? A. After they got the notice there was a general average, in fact, when the ship struck a reef up there most of the newspapers had an article about the striking.

Q. You did not even know that the cargo was damaged? A. No, sir, I did not know. 663

Q. Let us look at this notice. The notice which you advertised in the newspapers on August 9th, 10th and 11th said:

> "Consignees will call at the office of Rogers & Carr, 80 Maiden Lane, and sign the general bond and be prepared to make a cash deposit of 10 per cent. to secure the payment of the general average charges."

Is that the notice you put in the paper?

A. Yes.

664 Q. Did you mean for this notice to get to Pfizer and the Citro Chemical Company? A. I had mailed a notice containing that statement.

Q. Just answer my question. A. I am trying to.

Q. Just answer "Yes," or "no." Did you mean for this notice to get to Pfizer? A. In conjunction with the written notice which I had mailed them.

Q. You meant it to get to the Citro Chemical Company? A. In conjunction with the written notice which I mailed them.

665 Q. Did you at any time between the 9th of August and the 4th of October make inquiry from anybody as to what citrate of lime was? A. I did not. That was not my business.

Q. You did not? A. No, sir.

Q. Did you ask anybody between the 7th of August and the 4th of October what the value of the citrate of lime was? A. We left that all to the underwriters and surveyors.

Q. Did you do it? A. I did not, no, sir. All I did was to give all my information to my underwriters.

Q. Did you look in any trade papers to find
666 out what citrate of lime was and what it was currently quoted at? A. Personally I did not.

Mr. Carpenter: I object to this line of inquiry.

Q. Did you have any record in your office stating what citrate of lime was or what its value was? A. I left all that to the underwriters.

Q. In this letter which you have introduced here which is identified as Exhibit C-11, dated September 2nd, is this statement from Pfizer to you:

"We hereby notify you that we reserve 667
the right to file a claim covering this damage which we shall do as soon as the goods are out of the steamer which we understand will not be for a week or more."

Did you tell them on September 2nd or before that the goods would be out of that hold within a week? A. No, sir.

Q. Where did they get that information? A. I understand that they had some man down on the ship when the ship was discharging the cork at 129th Street. 668

Q. Did you have information from your own office, or the crew of your own vessel on September 2nd that this stuff would be unloaded in a week? A. No, sir. I did not know when it would be unloaded.

Q. Did you make any special efforts whatsoever of any kind to get that citrate of lime out of hold No. 1 after you learned it was in there wet? A. That matter was entirely in the hands of Mr. Williams and Mr. Dwyer.

Q. Mr. Williams and Mr. Dwyer here? A. The captain, and Mr. Conlon, they acted on all 669
matters pertaining to that.

Q. You did not have anything to do with that? A. Not within my function.

Q. Yesterday you had a subpoena served on you? A. Yes, but I understand now that there was one left at the office.

Q. Have you got the papers here called for by that subpoena? A. Yes, when I left here last night, I did not see the subpoena, but I understand they wanted all the telegrams and

670 radios. I dug those up yesterday and gave them to Mr. Sprague this morning.

Q. Are they all in this folder here? A. Yes.

Q. Those are all that passed between your office and the ship between the time she sailed from Lisbon or from Messina? A. Those are all the papers I could find from the time she sailed from Lisbon up to when she got to New York.

Q. Is it not customary for a cargo plan to come along with the manifest? A. It is eastbound, but a cargo coming inward, you never can tell what the foreign agent will do.

671 Q. Don't you customarily get a cargo plan come in with your manifest? A. We do customarily, but very frequently we do not.

Q. You did not in this case? A. I did not, no, sir.

Q. Where did you get the information that your office had about the freight that was payable by each of the consignees? A. From the manifest. Also with the manifest were copies of the bills of leading, both the bill of lading and the manifest contains the amount of freight.

Q. That would come to you by mail? A. Yes.

Q. Did Gilboy wire you from Halifax what
672 cargoes were damaged? A. The wires will show that.

Q. Are they in order? A. Yes. The Halifax are toward the back. That ought to be around July 24th.

Q. Was the freight paid on these two shipments? A. It was paid by Citro Chemical Company, but not Pfizer.

Q. When was it paid on the Citro Chemical shipment? A. I think it was August 14th.

Q. How much was it? A. I delivered to Mr. Sprague this morning a copy of the invoice.

Q. The freight on the Citro Chemical ship- 673
ment? A. I delivered to you this morning the invoice on the freight of the Citro Chemical Company which will show the amount and the date it was paid.

GEORGE T. WILLIAMS, being recalled, testifies as follows:

Direct examination by Mr. Sprague:

Q. Mr. Williams, you stated you were over in 674
the drydock of Tietjen & Lang when the *Willdomino* was first put in there, I believe August 24th? A. I was.

Q. Did you observe that damage? A. I did.

Q. State to the Court what damage there was to the hull of the ship? A. The entire fore plate of the vessel was stove in to such an extent that it threw back the frames, and the collision bulkhead which bulkhead is between the fore peak of the No. 1 hold. The bow was stove back so far that in my opinion it was impossible to cover by temporary patch of any kind. It would have 675
been such a large wooden affair that it would not be practical to make it watertight. It would consume many days to repair it by wood or even by steel, as it consumed many days afterwards to do it by steel construction.

Q. Did you ever hear of such temporary repairs made of such trenrendous damage at the port of destination? A. No, sir.

Q. As long as you were going to put in permanent repairs? A. Had it been an ordinary crack or a small bend, or of reasonable size, it

676 is possible to patch it over. But where the entire bow is crushed in as this was, from my experience I believed it impracticable absolutely to make temporary repairs within any reasonable time or at any reasonable cost.

Q. The records show that this vessel got in to New York on the night of the 7th, which was Saturday night, and began discharging the Monday morning at Pier C. Can you state how much of the cargo she had on board in addition to this citrate of lime? A. I recall that she had something like about 43,000 cases of lemons, a very large amount of cork wood and some sardines.

677 Q. Embroideries and dry goods, too? A. Not that I recall.

Q. Hold No. 1, is that the largest or the smallest hold on this vessel? A. Well, lower No. 1 is about the third largest.

Q. And there were four holds, were there not? A. Four holds, yes.

Q. What proportion of the space would you say was occupied in that ship of all the cargo, what proportion was occupied by the citrate of lime? A. In lower No. 1?

Q. No, the whole ship. Take the whole cargo

678 in bulk. What proportion of that whole cargo was citrate of lime? A. Ten or fifteen per cent.

Q. And this cargo had been somewhat changed around, had it not up in Halifax when the surveyors up there had put in a temporary repair so as to send her down here? A. The cargo in lower No. 1?

Q. Not lower No. 1; the rest of the cargo. A. In No. 2 I believe they shifted the cargo to brace the No. 2 bulkhead. That was ordered by the underwriters' surveyors for the navigation of the vessel from Halifax to New York.

G. T. Williams—for Claimant—Recalled—Cross.

Q. As I understood it before you put the vessel in drydock for survey on the 24th, you discharged all the cargo except the citrate of lime? A. Whatever was in lower No. 1 that was flooded, that was left in the vessel at the time it was drydocked. I believe there was some cargo held in there. 679

Q. Did you not take some of that out? A. I believe we took it out of the No. 1 'tweendecks.

Q. Taking into consideration all these things would you say that the work of discharging this cargo other than the citrate of lime which continued from August 9th to August 23rd, inclusive, was expeditiously done? A. Yes. 680

Q. Were you anxious to get this ship fixed up so that you could get away again?

Mr. Carpenter: I object to thot.
The Court: Objection sustained.

Q. Was there any reason why you should do it expeditiously? A. There was.

Q. What was the reason? A. We had a very valuable vessel. We considered her worth so much money per day, and we were very anxious to make the discharge, to make the repairs and get her in service again. 681

Cross examination by Mr. Carpenter:

Q. How much did you figure she was worth a day? A. In those days you were able to get about a dollar a ton a day on your net registered demurrage and charter parties. In this case about $4,200 a day.

Q. You figured her worth $4,200 a day to you? A. Yes.

682 Q. You spoke about temporary repairs by Tietjen & Lang, the question of putting on a patch was discussed, was it not? A. I don't think so.

Q. Some of the surveyors thought you could put a patch on? A. I don't think there was in any surveyor's mind such a possibility of patching that hole.

Q. Did not the surveyors calculate you could put a patch on for an expenditure of $500? A. No, sir; not to my knowledge.

Q. Was that talked over? A. I never heard about it.

683 Q. Do you deny it? A. I deny it.

Q. You say nobody recommended unloading the cargo from No. 1 hold? A. Lower No. 1?

Q. Yes. A. Never heard of anybody recommending it.

Q. You referred to a survey of August 26th, the detail survey found in the recommendations specifications No. 1 of the survey of August 26th: "Necessary drydocking in order to effect the above repairs. In order to make repairs to hull it was recommended that all cargo in No. 1 hold be removed and water pumped out." Did you ever hear of that before? A. I don't think

684 that was intended to say all cargo.

Q. Did you ever hear of that before in your life? A. Is this the specification for doing the work?

Q. Report of survey of vessel for doing work. A. I read that, yes.

Q. I call your attention to these four lines and ask you if you ever heard of it before? A. I recall that as being in the specifications.

Q. What effort did you make to have that specification carried out? A. That was the duty of the contractor to remove the cargo in the for-

ward part of No. 1 hold in order to permit him 685
to make a tight job of the collision bulkhead.

Q. What contractor do you refer to now? A. To the contractor repairing the hull.

Q. Who was that? A. Tietjen & Lang.

Q Did you not have anything to do in that connection yourself, or your company? A. The specification was drawn up by our surveyors, Frank S. Martin & Company.

Q. That specification No. 1 is your own surveyor's recommendation? A. That cargo in No. 1 be removed was necessary to make repairs that could not be made otherwise. 686

(Recess.)

(After Recess.)

George T. Williams, resumed:

By Mr. Carpenter:

Q. Of course you got this report of August 26th that I showed you on your direct examination, did you not? A. I did not.

Q. Made by your own surveyor? 687

Mr. Sprague: I object to this on the ground that the report clearly shows that it was dated October 19th. That is the document referred to here and it is manifestly an attempt to confuse this witness.

The Court: I will permit this.

Q. Do you say, Mr. Williams, that this recommendation that all the cargo be removed from No. 1 hold was not made to you until October?

688 A. It was never made to me at all that I recall.

Q. Whose surveyor was Francis H. Martin? A. For the owners of the vessel.

Q. You are the owner of the vessel? A. I was president of the company.

Q. Did you see this report as soon as Mr. Martin made it? A. I saw the specifications as he drew them up.

Q. That is just what I show you. You saw this? A. I don't know whether I did or not. I understand this is a general average report made months afterwards.

689 Q. You understand that. Do you see the date here August 26, 1920? A. Yes.

Q. Just read it and see if there is any other date on this report than that. Is there any other? A. There does not appear to be.

Mr. Sprague: Look at the beginning of it. Here is the date of October 19th.

Mr. Carpenter: You are not looking at the right one.

Q. Did you see this report of August 26th, 1920, within a day or two after it was made? A.

690 The only report that I saw——

Q. Just answer yes or no. A. I don't know.

Q. You do not mean to say that Captain Martin told you that all the cargo in No. 1 hold should be removed? A. He did not, that I know of.

Q. That you know of. A. I read the copy of the survey that he made and the recommendations and specifications and passed on them and passed on the bidders. That is the latter part of August, 1920.

Q. There were some cables that passed between

your office and the vessel at Ponta Delgada which were not brought here? A. I don't know that. 691

Q. Who would know? A. I don't know anyone that would know.

Q. Who sent the cables that passed between your office and the ship at Ponta Delgada? A. They were sent by the office in the usual course of business. I don't know just who would have sent them.

Q. Would they have come to your attention at the time? A. Possibly, possibly not.

Q. Did you not send a cable to the ship at Ponta Delgada to go to Sydney? A. Possibly.

Q. I don't want "possibly"; I want to know whether you did or not. A. I don't remember. 692

Q. Where are the cables that passed between your office and the ship at Ponta Delgada? A. If we have any, they should be in our files.

Q. Have any cables that were in your files been removed in the last two weeks? A. Not to my knowledge.

Q. I show you a cable dated July 22 from the captain of the ship at North Sydney, reading: "Arrived Sydney, awaiting instructions. Have radioed Halifax," and signed by the master. I will ask you what your reply to that was if you know? 693

Mr. Sprague: I object to this, if your Honor please. He has got the cables here. We furnished him with everything we have got.

The Court: He says he does not know, as I understand it.

Mr. Carpenter: Here is one: "Proceed Halifax immediately; report to Pitts & Black for bunkers."

694 Q. Where is that cable that preceded the one of July 22nd I showed you in which the captain cabled you that he had arrived at Sydney? A. I don't know. I presume they are all in our files.

Q. Did you at any time consider even the question of making temporary repairs to your vessel? A. At what port?

Q. New York. A. No, sir.

Q. It never entered your head? A. Sir?

Q. It never entered your head? A. I have thought of it, but so far as I was personally concerned it seemed absolutely impracticable to consider such a proposition from the extent of the
695 damage to be temporarily repaired.

Q. You decided not to do it, not to make temporary repairs? A. I don't know as there was any particular decision arrived at at the time.

Q. When it entered your mind, the possibility of making temporary repairs, what did you think about it? A. I did not think it was practicable.

Q. You did not think it was practicable? A. No, sir.

Q. Did you ask any surveyors whether it was practicable or not? A. I was in touch with the surveyors at the time and it did not appear to
696 anybody as far as I could see that it was practicable to do so.

Q. Did you ask any of them whether it was in fact practicable? A. I did not.

Q. Did you consult any wrecking company, such as Baxter or Merritt & Chapman about the practicability of taking out that cargo by means of divers? A. The submerged cargo in lower No. 1?

Q. Yes. A. I did not.

Q. Did you get from anybody an approxima-

tion of the cost of removing that cargo from hold No. 1 by means of divers? A. No, sir. 697

Q. Did that enter your head? A. I would not say it did.

Q. Did you not think when that vessel arrived in New York that all of the cargo in hold No. 1 was gone anyway and there was no use of spending any more money to try to get it out? A. It was my impression——

Q. Just answer that "Yes" or "No." A. I did not exactly feel that way about it.

Q. Can you answer that yes or no? A. I will say no.

Q. You say no? A. Yes. 698

Q. Then why did you not ask somebody what the citrate of lime was? A. Why did I not ask anybody what the citrate of lime was?

Q. What the value of it was. A. I did not think it was necessary.

Q. Did you know? A. I did not.

Q. Then why did you not think it was necessary? A. Because the cargo was already submerged and I did not think we could discharge it until the vessel was repaired and we had a drier hold to work in.

Q. That is just your own personal thought about it? A. My own personal thought. 699

Q. You knew, did you not, that the consignees sent teams or conveyances to the vessel to try to get their cargo; I mean now the cargo of citrate of lime? A. I do not.

Q. Did you not give instructions to the ship or the delivery clerk to inform the consignees of the citrate of lime when they called that they could not have their cargo until after the repairs to the ship had been made? A. I did not.

700 Q. Who gave such instructions, if you know? A. I don't know.

Q. You know, don't you, that the consignees did send to the ship to get their cargo of citrate of lime? A. Personally I would not know.

Q. Don't you know that the Citro Chemical Company did send to the ship for their cargo in August? A. I do not.

Q. Did you not give instructions to your office to collect the freight on the citrate of lime before the consignees were notified that their cargoes had been damaged? A. I did not.

Q. What? A. Not that I remember.

701 Q. Do you know who did give such instructions? A. No, sir.

Q. You do know that the freight was collected from the Citro Chemical Company before they were notified about the damage, don't you? A. I do not.

Q. Did you not send instructions to the captain of the *Willdomino* when she was at Ponta Delgada to go to Sidney and there fill up her bunkers with coal? A. I may have.

Q. I want to know whether you did? A. I could not remember that at this time.

702 Q. How big were the bunkers of the *Willdomino* and how much coal would she take? A. Permanent bunkers about 650 tons and reserve bunker in her bridge deck about 802 tons.

Q. So she could carry about 1,400 tons of coal? A. 1,450.

Q. Did you anticipate that when the vessel sailed from Ponta Delgada that she would go to Sidney and there take on approximately 1,400 tons of coal? A. No. We may have given him orders to proceed to the nearest coal port, which

would have been North Sidney from Ponta Del- 703
gado.

Q. If he could have gotten it there, was it the duty of the master when he got to Sidney to fill up his bunkers with coal there?

Mr. Sprague: I object to that question as to what the duty of the master was.

The Court: I will permit it.

A. It might be considered his duty, but since we were able to get in touch with North Sidney we would have given the instructions.

Q. Did you have a representative at North 704
Sidney? A. No, sir.

Q. Was coal purchaseable at North Sidney cheaper than at New York at that time?

Mr. Sprague: I object to that.

The Court: Those are all elements that the Court must take into consideration in deciding the facts.

A. We may have been able to purchase coal cheaper there at that time.

Q. You are a practical shipping man and you know those facts, whether you could or could not. 705
I wish you would give us the truth about it, not possibly. Could you get it cheaper or not? A. As I said, the reason we bunkered ships at North Sidney during that period was because of the scarcity of bunker coal in the North Atlantic or the Atlantic Coast ports of the United States particularly available for foreign steamers.

Q. Then why would you not know that being in your mind and that being the fact, if you in fact gave your captain instructions to sail direct

706 to Sidney for coal? A. I may have; I don't remember.

Q. Can you tell us how we can get the fact whether or not you did, not whether you may have, but whether you did? A. The cables will show if I did.

Mr. Sprague: We have produced all the cables and handed them *en bloc* to our friends. The captain has been examined and the captain said he had no such orders.

Q. I hand you all the cables that your office
707 produced and I ask you if you can find any cable in here relating to coal in any respect while the vessel was at Lisbon, Ponta Delgada or on her way to Sidney, giving your master instructions whether to go there or not?

Mr. Carpenter: Well, suppose we let him look those over afterwards. I do not want to take up the time now.

Q. I will ask you this. Did the master of the *Willdomino* in sailing for North Sidney disobey any instructions from your office?

708

Mr. Sprague: I object to that, your Honor; I think this is going a bit far.

The Court: I will permit it.

A. I would not say that he did; I don't know.

Q. You cannot answer whether he did or not definitely, can you? A. I cannot.

Mr. Sprague: I object further on the ground, your Honor, that the master is the boss of the ship when he gets to sea. He

has a right to do what he pleases and what he thinks best for the ship. 709

The Court: We have got to get all the elements. Then you have time to argue whether they apply or whether they do not.

Q. Do you know when the strike started at North Sidney? A. What strike?

Q. By reason of which the *Willdomino* was not able to get more than 62 tons of coal. A. No, sir.

Q. Did you know of the strike before the *Willdomino* arrived at Sidney? A. I don't remember anything about a strike, no, sir. 710

Q. You never heard there was a strike there or any difficulty about coal until after the ship arrived there, is that it? A. I don't recall anything in connection with a strike at North Sidney.

Mr. Carpenter: You can look those cables over while you are off the stand.

Redirect examination by Mr. Sprague:

Q. Mr. Williams, again showing you this paper which Mr. Carpenter has shown you, which he calls a report of August 26th, I ask you to examine the same and see whether it is not a report of October 19, 1920, beginning at page 19 and going to page 31 of the general average adjustment? A. At page 19 it shows it to be dated New York, October 19, 1920. 711

Q. And this date of August 26th which appears on page 22 is nothing more than a date contained in that report, is it? A. Apparently so.

Q. So that this report was made after the ship

712 had completed her drydocking apparently from this statement? A. Yes.

Q. And after the cargo had been tendered to the owners? A. Yes.

Q. You did see the specifications on this ship, did you not? A. For the repairs?

Q. Yes? A. Yes.

Q. There was nothing in those specifications regarding the removal of this cargo in No. 1 hold, was there? A. The only thing I recall in the specifications is they were to remove such cargo in the forward end of the No. 1 hold so that they could make repairs to the collision bulkhead.

713 Q. And what was to be done in regard to making the repairs in the tank tops, the floor of the ship? A. That was a separate bill rendered to us for cleaning off the dirt and muck on the No. 1 tank-tops so that they could complete the repairs and finish the sealing.

Q. That was done after the ship had gone into the wetdock? A. After it left the drydock.

Q. In other words, as you recall the specifications they provided that enough of this was to be moved aside so that they could put on the plates and fix the collision bulkhead? A. That

714 was removed while in the drydock. I was there personally and saw it.

Q. And the rest was to be done after the ship was in the wetdock and the cargo had been taken out? A. Yes.

Q. I show you the specifications of August 26, 1920. See if you find anything in there about this removal of the cargo of the No. 1 hold? A. The specification is to repair the vessel's hold. I do not see any provision for removing any cargo.

Q. You do not find any such provision as was in this report of October 19th that Mr. Carpenter showed you, do you? A. No.

Mr. Sprague: I ask to have this marked for identification. 715

(Marked Exhibit C-13, for Identification.)

Q. You gave instructions to Mr. Burney to produce all the cables had with the master here? A. Yes.

Q. And those cables that have come to you in the folder are the cables produced according to your instructions? A. Yes.

Q. If you gave any instructions to the master at Ponta Delgada or at Lisbon or at Halifax it would be contained in these cables? A. It would be. 716

Q. If you gave any such instructions it would have been by cable? A. Yes.

Q. And there should be a copy in your files? A. There should be a copy in the files.

Q. And if your instructions had been followed out those cables are here? A. Yes.

FRANCIS A. MARTIN, being recalled, testifies as follows: 717

Direct examination by Mr. Sprague:

Q. Mr. Martin, I show you this paper marked Exhibit C-13 for identification, and ask you if that is a copy of the specifications of the repairs to the *Willdomino?* A. That is a copy of the specifications sent to various repairers so that they could bid on the work.

Q. Is that the copy made at that time? A. Yes.

718 Q. Is there anything contained in the specifications that are not contained there? A. No, sir.

Q. Those were the actual specifications? A. Those were the actual specifications.

Q. At that time? A. Yes.

Q. Those are the ones you sent to Mr. Williams? A. Yes, those were sent to Mr. Williams.

Q. Mr. Carpenter has called attention to what appears to be a report in the general average adjustment in which there is included a statement in regard to the removal of the cargo from No. 1 hold, extending from pages 19, I believe, to 31. Can you state when that report was made
719 and for what purpose? A. That report was made on completion of the repairs and for the purpose of average adjustment.

Q. What date was it made; is the date at the beginning of that report? A. October 19, 1920.

Q. To whom was it sent? A. Three or four copies were sent to the Williams Steamship Company and we sent one to the insurance brokers.

Q. Messrs. Rogers & Carr? A. Rogers & Carr.

Q. At the time that was made out the ship had been completed of repairs? A. They had completed repairs, yes.

720 Q. I notice in this report that there is a statement on page 29 reading: "In order to make repairs to hull it was recommended that all cargo in No. 1 hold be removed and water pumped out"? A. The repairs to the tank-top could not be completed until the cargo had been removed after the vessel was flooded. This is not included in the original specifications and the repairers who bid on the job did not figure on removing any cargo, but in order to complete their contract the cargo had to be removed so that the bilges could be recoated and the sealing removed.

Q. That is after the plates had been put on? 721
A. Yes.

Q. In other words, the plates were put on in drydock? A. Yes.

Q. And the forepeak fixed? A. Yes.

Q. And then the shipowner was required to take out the cargo? A. So that Tietjen & Lang could finish their contract.

Q. Did you recommend that the cargo be taken out of No. 1 hold before these repairs could be done? A. No, sir.

Q. Did any surveyor recommend that to your recollection? A. Not to my recollection.

722

Cross examination by Mr. Carpenter:

Q. This report in which that statement is made is dated August 26, 1920, is it? A. Yes.

Q. And it was that report of that date which contained this recommendation under the specification No. 1:

> "Necessary drydocking in order to effect the above repairs:
>
> "In order to make repairs to hull it was recommended that all cargo of No. 1 hold be removed and water pumped out"?

723

A. Yes.

Q. You recommended that that cargo be taken out and the water be pumped out in order that the repairs could be made, did you not? A. In order that the repairs could be completed.

Q. Then why do you say here: "In order to make repairs to hull it was recommended that all cargo in No. 1 hold be taken out"? A. That is in the original specifications that were sent out. That was put in there for a notice to the average adjuster.

724 Q. Why do you say it was not in there? A. Because I know it was not. I made them up.

Q. This report of survey of August 26, 1920, was signed by you, was it not?

Mr. Sprague: I must object. It is not August 26, 1920; it is dated October 19th. August 26th is a date that appears in there.

Q. Who has the original of your report of August 26th? A. I have one right here. That is not signed by me; it is signed by my father.

725 Q. Where is the original one of August 26th which you offered? A. There is not any of August 26th. This is the specification.

Q. Do you happen to know that there is one paragraph more in this report of yours in the book which I have here than in the typewritten copy you have produced? A. Do I happen to know what?

Q. That there is one more paragraph, counting them by number, in here than here? A. No, I do not.

Q. Count them up yourself and see if there is not a paragraph missing in that this entire

726 paragraph is missing (handing witness paper)? A. This entire paragraph is in here.

Q. Let us see it. A. Here it is; but that is not in the specifications.

Q. But it appeared to be in your specifications when it was printed in this book, did it not?

Mr. Sprague: I object to that. That is easily found out.

A. The specifications are drawn up at the time of the survey.

Q. Do you know what it would have cost to have made temporary repairs for the *Willdomino* when she was in drydock at first? A. No, I do not. 727

Q. You did figure it out, did you not? A. I did not.

Q. You do know it would cost $500? A. $500? That would not pay for the drydocking.

Q. I am asking you about the cost of the temporary repairs? A. No, sir.

Q. Did you not figure, you yourself, that the temporary repairs would cost $500? A. $500? No.

Q. Did you ever hear of that statement before? A. I never did until you mentioned it here in court. 728

Q. Did you estimate it? A. Not to my recollection.

Q. Let me ask this question: Did you estimate at any time that the temporary repairs to that ship would cost $500? A. Not to my recollection, no.

Q. Did you ever make that statement? A. I don't remember making that statement.

Q. Or anything to that effect? A. I do not even remember it, no, sir.

Q. Did anybody else, any other surveyor, while the vessel was at Tietjen & Lang's, estimate that temporary repairs to that ship would cost $500? 729

Mr. Sprague: I object.

The Court: In your presence.

A. I cannot recollect anybody making any remarks about the cost of any temporary repairs as long as I had anything to do with the vessel.

Q. You could have very readily figured on what

730 the temporary repairs would have cost, could you not? A. I suppose I could at the time.

Q. They would have consisted of planking and cementing and oakum, would they not? A. And about four or five days' drydocking.

Q. Not for that? A. I don't know. The job is two years old now.

Q. They could have been made within four or five days? A. I don't know. I never asked Tietjen & Lang how long it would take to make temporary repairs.

Q. You have a large knowledge of such matters and a wide experience in such matters? A.
731 Quite a little, yes.

Q. Do you think $500 would be about a fair price for making temporary repairs? A. $500 would not pay half a day's drydocking.

Q. In addition to the cost of drydocking? A. I have not any idea; I have never gone into that.

Q. How long would it take you to calculate that? A. I don't know. I would have to see how the damage looked. I don't know whether there is a photograph or not.

Re-direct examination by Mr. Sprague:

732

Q. Mr. Martin, when you went over this survey you found this ship so broken up that you walked right in on the ladder from the outside of the ship into the peak tank? A. Yes.

Q. You did not have to go above and go through the manhole? A. No.

Q. You could have wheeled a wheelbarrow through there, could you not? A. I believe very nearly.

Q. And that is the sort of thing that they ask

to have temporary repairs made? A. I never heard anybody talk about temporary repairs to my recollection. 733

Q. As a matter of fact, the permanent repairs cost $35,000, did they not? A. $37,000.

Q. To patch that temporarily so that the water would be kept out of this hold would have meant what; what would you have had to do? A. You would have had to use some planking and some oakum and caulking and some cement, and overhaul some of the ribbing, and put some bolts in where they were sheered, and some caulking, and then drydocking.

Q. Every rivet that was loosened would have to be fixed up? A. It would have to be made tight. 734

Q. Nobody could tell what that would be, could they? A. No, they could not tell. It was right along the fore peak bulkhead.

Q. That would have cost thousands of dollars?

Mr. Carpenter: I object to the question.
The Court: It is very leading.

A. I don't know exactly how much they would cost. I know it would take four or five days. The drydocking would be in the neighborhood of $3,500 alone. 735

Q. That is in addition to the cost of the repairs themselves? A. Yes.

Q. And the rest is problematical? A. Yes.

Re-cross examination by Mr. Carpenter:

Q. How much would the rest be? A. I don't know. I cannot tell unless I have a photograph of the ship and see what the damages are; this is two and a half years ago.

736 Q. You know the length and width of that hold, don't you? A. No, I do not, offhand.

Q. Approximately? A. No; I have not any idea.

Q. You saw it? A. A number of times.

Q. A wheelbarrow would go through? A. Now you are talking about the No. 1 hold?

Q. About the hole on the bottom of the ship. A. There was a big hole. Some were turned in and some were turned out.

Q. Was there as much as 50 square feet in that hole? A. I don't believe any more.

Q. Then 50 square feet of planking would cover it, would it not? A. It would not, only the hole.
737 There was the tank-top in No. 1 hold, that would have to be made tight, and the forepeak bulkhead and all the riveting.

Q. How many square feet would it take to cover the hole? A. I have not any idea.

Q. Would a hundred square feet do it? A. I have not any idea.

NOEL P. PILCHER, being recalled, testifies as follows:

738 Mr. Sprague: I offer the specifications in evidence.

(Exhibit C-13 for Identification is received in evidence and marked Exhibit C-13.)

Direct examination by Mr. Sprague:

Q. Captain, the *Willdomino* was a vessel of 8,800 tons dead weight capacity. Her holds were

filled with cargo consisting of lemons, cork wood and other general cargo from the Mediterranean countries. She arrived at Halifax, where some of the cargo was moved from its original stowage to other places in the ship in order to bring her hold up on her way down to New York. She arrived in New York on Saturday night and commenced discharging this varied cargo on the 9th of August, completing that discharge on the 23rd of August. I ask you as an expert whether or not that discharging was expeditiously done, in your opinion? 739

Mr. Carpenter: I object to that. That is a question for the Court to decide. 740

The Court: I will sustain the objection.

Mr. Sprague: May I reframe the question?

Q. I will ask you if in your opinion the period of sixteen days was a reasonable time for the discharge of this cargo that I have enumerated, not including the cargo that was under water? A. Yes.

Mr. Carpenter: He has not shown what the cargo was or the condition it was in or the holds it was in. How many cases there were or anything of that sort. 741

The Court: I think you ought to add those facts to your question.

Mr. Sprague: It will take me some time to figure it all out.

Mr. Carpenter: I will withdraw the objection then.

The Court: Let it stand.

742 *Cross examination by Mr. Carpenter*:

Q. Does it make any difference whether the lemons were in bulk or in crates? A. That length of time would be an ordinary length of time for discharging such a cargo.

Q. Whether they were in bulk or not? A. I understand there were 43,000 cases of lemons. It does not say anything about lemons in bulk. There were sardines and other general merchandise.

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743 FRED C. RODMAN, called as a witness in behalf of the claimant, and, being first duly sworn, testifies as follows:

Direct examination by Mr. Sprague:

Q. Mr. Rodman, what is your business? A. Cargo surveyor.

Q. For whom? A. On my own behalf.

Q. Were you employed in August, 1920, by the Citro Chemical Company or by their underwriters? A. At the request of their underwriters.

744 Q. For what purpose? A. To determine the cause and extent of the damage on their 116 casks of citrate of lime.

Q. Can you state what date you were employed? A. I was notified on August 7th that the ship was then en route to New York.

Q. Who notified you? A. The Insurance Company of North America.

Q. They were the underwriters on this shipment? A. I believe so.

Q. What were your instructions? A. As I said before I was instructed to survey and determine

the cause and extent of the damage to the citrate of lime, and naturally I awaited the arrival of the ship, and on Monday morning, August the 9th, I proceeded aboard the ship. 745

Q. Where was she, at Jersey City? A. Pier C, Jersey City.

Q. What did you find there? A. I found that the hatch-covers on No. 1 were closed so that the merchandise was not available for examination.

Q. Did you notice the trim of the ship at the time? A. Not particularly.

Q. You learned then that the cargo was under water, did you not, the citrate of lime? A. I did not learn it. 746

Q. Did you ask to have the hatches removed? A. No, sir.

Q. When did you next proceed aboard the vessel? A. August 11th.

Q. Where was she then? A. At the same pier.

Q. What did you do then? A. May I refer to my notes?

Q. Yes; they are notes you made at the same time? A. Yes. As I remember it, the hatch was not working, the No. 1 hatch. Therefore left the ship.

Q. Did you ask to have it opened? A. No, sir. 747

Q. When did you next go on board the ship? A. On August 17th.

Q. Where was she then? A. At Pier C, Jersey City.

Q. What did you do then? A. No. 1 lower hold not working, casks not accessible.

Q. Was the hatch open? A. I don't remember.

Q. You simply remember that the hold was not working and the casks were not accessible? A. Yes.

748 Q. When did you next go aboard the vessel? A. On August 24th, at the pier, foot of 135th Street and North River.

Q. What did you find then? A. The casks still in stowage and most of them submerged, very heavily wet.

Q. Did you go down in the hold on top of the casks? A. I made no definite record, but my impression is I walked around the tops of barrels of cork wood.

Q. Were you there at the same time that Mr. Liesegang, of Koehler, Kemp & Koehler, was there? A. Yes, at that same time.

749 Q. Did you do what he did? Did you accompany him? Did you work together? A. Presumably I did, but I might have made my own observations independent of his.

Q. What did you do? A. Made a general notation that the casks were submerged or heavily wet.

Q. You observed then that the water was up over most of them? A. My recollection is that possibly the top tier was then wet rather than submerged.

Q. You think that the top tier, that the water
750 was off from the top tier? A. Yes, but wet.

Q. Did you take any samples? A. Not at that time.

Q. Do you know whether the 150 barrels were at the top or at the bottom? A. I believe there were no definite stowage records of the position, and the casks would not permit the examination for marks, so that I could tell very much about it.

Q. Did you take any samples that time? A. Not that time.

Q. Did you report to the Citro Chemical Company at that time? A. No.

Q. When did you take samples? A. I believe 751
it was August 28th, at Tietjen & Lang's drydock.

Q. The vessel was then in drydock? A. Yes.

Q. What did you do at that time? A. I went up with a cooper who had facilities for boring the casks and drawing what samples I required, and I then drew samples in such a fashion as to determine to my own satisfaction just what effect the sea water had on the contents.

Q. How many samples did you take? A. I believe I took four samples.

Q. Out of four different barrels? A. Either four or possibly three different barrels, and then 752
some bulk samples.

Q. What did you do with the samples? A. I submitted them to Sherer Brothers, chemists.

Q. Acting for you? A. Naturally.

Q. Did you employ them for the underwriters? A. For the analysis.

Q. Their bill was paid by the underwriters, was it? A. If it was not paid by me direct it was paid by the underwriters.

Q. So that in one way or another it was paid by the underwriters or the Citro Chemical Company? A. That is part of the expenses.

Q. Did you obtain a report from these chem- 753
ists? A. Yes.

Q. Have you that report with you? A. Yes.

Q. Will you produce it, please? A. There is a copy. I can find the original if you wish. This is the original, if you prefer it (indicating).

Mr. Sprague: I will have that marked for identification.

(Marked Exhibit C-14 for Identification.)

754 Q. After you received this report, this analysis, from the chemist, Exhibit C-14 for Identification, did you report to the Citro Chemical Company? A. I believe I did confer with the Citro Chemical Company, other cargo surveyors and other concerns in the manufacture of citric acid.

Q. Was that report in writing? A. No. Did you want to know what I reported to Citro?

Q. Yes. A. I reported the general condition of the wet casks and recommended as a matter of precaution that they take steps to obtain a refund of duty.

755 Q. When did you make that recommendation? A. Is a copy of the letter satisfactory?

Q. If you can state the date from that letter. A. I wrote that letter on the afternoon of the day I first saw the casks. The casks were first accessible——

Q. When was that? A. August 24th.

Q. May I see the letter, please? A. Surely (handing counsel letter).

Q. In this letter you ask them to confer when you know the result of the analysis. What analysis do you refer to there? You had not taken your samples at that time? A. No.

756 Q. Had they taken samples themselves prior to that time? A. I suggested at first to have samples taken and determine to what degree the material had suffered and let me know their findings.

Q. Then they asked you to take samples? A. No; I took the samples independently.

Q. For the underwriters, for your employers? A. So that I could report to whoever it might concern. I did not know who it concerned finally.

Q. After you had this analysis from Scherer Brothers, these chemists, you reported to the

underwriters on this shipment, did you not? A. 757
I probably did.

Q. Did you not make a written report here that you showed me a moment ago? A. That is the final report of the survey which was before the report which was made I believe in December of that year.

Q. May I see it, please? A. Yes (handing paper to counsel).

Q. After obtaining the chemist's report you communicated with the Citro Chemical Company? A. Yes.

Q. And they informed you that they "were not 758
equipped to handle all of the damaged casks at once and in view of the consequent delay to which the major part of the casks may be subjected while awaiting the process they were of the opinion that the citrate would continue to ferment and continually lose more of the citric acid content"——

Mr. Carpenter: I object to that unless it is all to be in evidence, because I do not think they ought to read in just a part of it.

Mr. Sprague: I am willing to put it all in.

759

Mr. Carpenter: I will consent.

The Court: All right.

(Received in evidence and marked Exhibit C-15.)

Q. (continued) "And for that reason alone they were inclined to consider the situation hopeless." Do you say you had such a conversation? A. Yes.

Q. You had it directly after you obtained this chemist's analysis, I take it? A. Yes.

760 Q. Which was the 2nd of September? A. About that time, yes.

Q. And those tests were also submitted to Philadelphia, to the Philadelphia office? A. Yes.

Q. And to Powers, Workman & Rosengarten & Company? A. Yes.

Q. What did they say? A. They indicated that the average test indicated the citric content too low to warrant the manufacture of the material.

Q. The cost of reconditioning it? A. Yes.

Q. And therefore you recommended to your underwriters that they accept this as an abandoned cargo? A. May I go back to the memo-
761 randum? Did I say reconditioning in the report?

Q. Look at the report? A. No. The previous question was, this was submitted to Powers, Workman & Rosengarten & Company. They stated that the cost of extricating the citric acid would be considerably more than the final value of the citric acid obtained, and that the material in this damaged condition was absolutely worthless for any other purpose.

Q. On the basis of this you recommended to your employers, the underwriters, that they accept an abandonment of this by the Citro Chemical
762 Company? A. I do not believe I recommended——

Q. What does it say there? A. Here is the letter? A. No. That was to serve as a further indication of the trade viewpoint of the material in that condition. But as Sherer considered the shipment worthless I endeavored to obtain a possible purchaser for the casks and after a short while I finally found a prospect and a buyer, that is Mr. May, if you wish to know who he is, with whom I proceeded to the dry dock when samples were drawn, and he made an offer per cask which for us was quite low, and I naturally

rejected it, as it would not pay the duty on the shipment. 763

Q. You did not obtain any higher price or offer above that? A. I took it up with large chemical brokers first on Wall Street and they introduced me to him as the only possible man they could locate.

Q. You canvassed the market pretty well, did you? A. I would not say that I did canvass the chemical market. I thought the logical thing would be to go to a big chemical broker who would know the ramifications of the trade better than I did.

Q. You did not find anyone else who was interested in it? A. No. 764

Q. As a matter of fact, your employers accepted abandonment of this shipment? A. No.

Q. They paid their insurance on it?

Mr. Carpenter: I object to that as immaterial.

The Court: Objection sustained; the questions are leading.

Q. This analysis, do you know whether that was based on a dry sample or a wet sample? A. That was based on the sample of the merchandise as I found it on the pier, put in glass bottles to lose no moisture at all. 765

Q. It was wet at the time or dry? A. I should think that the outer layers were heavily wet and possibly the inner layers were either moist or wet, possibly moist rather than wet. I made no tests myself for excess moisture. I left it entirely to the chemist.

Q. Did they appear to be wet, the stuff when you took it out? A. The outer layers, the outer

766 part of the casks was distinctly wet, and what was inside appeared to be lumpy or moist rather than wet.

Q. It was not dry? A. No: not bone dry.

Mr. Sprague: I understand your Honor declines to allow me to prove that they had abandoned to underwriters.

The Court: I ruled on the question which was presented in that form.

Q. Mr. Rodman, do you know whether or not the Citro Chemical Company ever abandoned this
767 commodity to the underwriters and demanded payment of the insurance thereon?

Mr. Carpenter: I object to that as immaterial in this case. The question here is what was the fact regarding this particular shipment as to its condition. We are not concerned with whether they abandoned to the underwriters or not.

The Court: I do not think it is material, but in order not to keep something out that ought possibly to go in, I will let it go in and you may have an exception.

768

(Libellant's counsel prays an exception, which is hereby allowed and sealed accordingly.)

(Sealed.)

A. The Citro Chemical Company did not abandon that cargo to the underwriters.

Q. Do you know whether or not the underwriters paid the insurance on it?

Mr. Carpenter: I object to that as immaterial. 769

The Court: Objection sustained.

Mr. Sprague: Exception.

(Claimant's counsel prays an exception, which is hereby allowed and sealed accordingly.)

(Sealed.)

Q. Do you know whether or not the Citro Chemical Company tendered abandonment to the underwriters? A. They did not.

Q. What did they do with respect to the cargo? 770
A. As they found it so to speak a constructive total loss, and as all the information I could obtain on the subject indicated that their viewpoint was right, I reported to the underwriters that under the circumstances that it appeared to be that the cargo was worthless and under those circumstances we did not care what the consignee did with them.

Cross examination by Mr. Carpenter:

Q. Is it not a fact that if the cargo is 51 per cent. damaged, the damage is 51 per cent. of its value, the owner may abandon to the underwriters? 771

Mr. Sprague: That is a question of law, your Honor.

Mr. Carpenter: He went into the subject.

The Court: I will permit it.

A. The question of underwriters' contractual obli-

772 gations to any consignee is one that I would not attempt to discuss.

Q. Do you happen to know in this case whether it was considered that this cargo was more than 51 per cent. damaged when it was finally unloaded from the ship? A. When it was finally unloaded from the ship?

Q. Yes. A. I should say it was more than 51 per cent. damaged at that time.

Q. That is your investigation; your report shows that? A. Yes.

Q. Now, then, when was it that you got a report on your sample or from Powers, Workman &
773 Rosengarten & Company. Was that after the ship was unloaded? A. No. That was after I had Sherer's analysis before me.

Q. And Sherer's analysis report was dated September 2nd? A. Yes.

Q. And it was some time after that that you submitted samples to Powers, Workman & Rosengarten & Company? A. I don't know whether I submitted samples to them; I know I submitted the analysis through the Philadelphia office.

Q. Do I understand that by the time you submitted the samples to Sherer Brothers a part of
774 this citrate of lime acted as though it was fermenting? A. Yes.

Q. Any part of it look as if it was burned? A. The burned is something that the chemist added to it.

Q. How about you yourself? Did you smell a burning odor about this stuff? A. I did not detect that.

Q. But it was in the chemist's analysis anyway? A. Yes. It smelled burnt to him.

Q. Did you observe that the citrate of lime in the casks was wetter at the outside of the barrels

or the side nearest the staves, than it was towards the center? A. Yes. 775

Q. Did you notice anything else about that other than what you have testified? A. I noticed that there was a discoloration in the outer layers presumably from one of the chemical constituents in the staves and that this simulating of burning as I remember it was one of those samples which had discoloring from the staves on the layers.

Q. Did you notice any discoloration in the citrate of lime in the center of the casks? A. I should say that the center was less discolored than the outer layers.

Q. Did you notice any froth on top of the barrels? A. No. 776

Q. Or inside of the barrels under the head? A. No.

Q. Did you notice any citrate of lime that was black? A. Any citrate from time to time that was black was what had been in immediate contact with the staves of the barrel.

Q. What was the date that you drew the samples that were submitted to Sherer Brothers, August 28th? A. I believe so.

Q. Were you able to get close enough to these barrels before that date to draw a sample? A. I don't think so. 777

Q. You said the first day you were over there, August 9th, the hatch was closed? A. Yes.

Q. And the next time you went there the hatch was closed, August 11th? A. It was.

Q. Did you ask to look in? A. I had a general discussion with the representative of the pier, I think it was Captain Gilboy, and he told me the intention in the beginning was to discharge only the lemons at Pier C.

778 Mr. Sprague: I move to strike out the answer as not responsive.

Q. Did you ask Captain Gilboy for permission to look into the hold and draw samples from the casks? A. At what date?

Q. Any time while she was lying at Pier C, Jersey City? A. No. I determined from him and also by a walk down the deck that the hatch was closed and presumably that the bales of cork wood which were said to be stowed on top of the casks would not permit an examination of the
779 casks.

Q. You said something about the hatch-covers, as I understand you, to have been out of order? A. Out of order?

Q. Yes; did you say that? A. No.

Q. Did you say to Captain Gilboy that he ought to remove the citrate of lime before he did, that he ought to get that out first? A. I don't think so.

Q. Did you tell Captain Gilboy that he ought to use more speed in getting out that citrate of lime? A. I don't remember.

Q. You did recommend that special care be
780 used in the discharge of the casks, did you? A. Yes.

Q. Did you recommend at any time that the consignees make claim in writing against the steamship company and take the necessary steps to obtain relief of duty? A. Yes. I believe I wrote either the 23rd or the 24th of August to the Citro Chemical Company to make claim as a precautionary measure.

Q. You knew that the steamship had been on the rocks at that time, had you not? A. Yes.

Q. You knew she had been in Halifax Harbor for several days? A. Yes. 781

Q. You knew she had been down here to New York for nearly two weeks, did you not? A. Yes, I knew on August 2d the steamer had met trouble and was on her way to New York.

Q. Did you know on August 2nd that the citrate of lime was damaged or wet, or were you just asked to go on the ship and make an examination of whatever might be damaged? A. I did not know on August 2nd what the condition was.

Q. Did you know when you got on the ship the first time, August 11th or August 9th, when you got on the ship and before you asked any questions about it, that the citrate of lime was damaged in any respect? A. No; I did not know it was damaged? 782

Q. When did you first get information that the citrate of lime was damaged? A. When I saw her in drydock.

Q. That was before you drew any samples, was it? A. Probably at the same time I drew samples.

Q. When were you first told that there was citrate of lime in the No. 1 hold? A. Presumably at such time as I first went aboard the ship.

Q. Did your company which employed you in this case have any notice prior to your report to them that the citrate of lime was damaged or wet in any regard? A. You mean wet or damaged? 783

Q. Either one. A. Well, we might have expected that if the citrate of lime was in the No. 1 hold, it would probably be wet.

Q. Did you know up until the time you were employed, or the time you got over there at the ship, did you know anything except that the *Willdomino* had been injured and that there might

784 have been damage to some cargo; that is all you knew? A. That is all I knew.

Q. Had any information specifically been given that it was citrate of lime or the cargo consigned to Pfizer or the Citro Chemical? A. You could only determine that by elimination on the first visit at the ship.

Q. What would you have done, Mr. Rodman, if you had had notice from Halifax that it was the citrate of lime consigned to Pfizer or Citro Chemical Company that was damaged? What would you have done right off?

785 Mr. Sprague: I object to that as speculative.

The Court: Objection sustained.

Re-direct examination by Mr. Sprague:

Q. Mr. Rodman, you say that the citrate of lime was discolored around the staves? A. Yes.

Q. A sort of a yellow color? A. I should say it was a dark blue to a black.

Q. Of course you did not know what that was from? A. I should say that it must have been chemically—presumably something in the wood.

786 Q. You are not a chemist, are you? A. I would not have to be a chemist to arrive at a conclusion as to what the general condition was.

Q. You are not a chemist? A. No, sir; not a chemist.

Q. This citrate was right up against the staves of the barrels, was it not? A. The outer layers of it.

Q. There was not any lining inside of these barrels at all? A. Not that I remember.

Q. Right up next to the barrels, and the barrels were the ordinary commercial barrels that are used; they were not flimsy—— A. I would say these barrels were well constructed. 787

Q. They were not tongued and grooved? A. No.

Q. There was nothing to fill in the spaces between the staves, was there? A. To prevent the shifting of the contents.

Q. There was not anything between the staves, was there? A. Not as I remember. I do not think there was any need for it at all.

Q. To whom did you recommend that the special care be used in the discharge of this cargo? A. To the general average adjusters. 788

Q. To whom did you recommend that they make claim against the steamship? A. The consignees, as a matter of protection.

Q. That was because the cargo was wet, was it not? A. Yes.

Q. And you say that you did not know that the citrate of lime was damaged until you saw it in the drydock? A. I did not know that it was damaged until I saw it in the drydock.

Q. You saw it under water up at 134th Street? A. That was the condition of it being wet. When the contents themselves were available in drydock then I found it was damaged. 789

Q. You knew it was wet before then, but you did not know naturally the damage the dampness had done until you got in drydock? A. No.

Q. As a matter of fact, you knew that it had been in the No. 1 hold and that it had been wet on the 2nd of August, did you not? A. No, I did not.

Q. What do you mean then on your report when you say: "Loss reported August 2, 1920."

790 What loss? A. Well, technically the report should have read: "Assumed loss," or "alleged loss."

Q. You were informed by your employers that this ship had been in collision? A. That there was an excess of water in the No. 1 hold.

Q. And that it was that cargo that was in this hold? A. Possibly, yes.

Q. You were requested to go on board the boat? A. Yes.

Q. It was thought possible that it was in that hold? A. Yes.

791 Q. You are not clear about that, are you? A. Yes.

Q. That is what they told you? A. Yes.

Q. You knew that from August 2d on? A. Yes.

Q. After it got here you went right over? A. Yes.

Q. I am not quite clear about what you said to Captain Gilboy. I understood you to say in answer to my direct examination that you did not ask to have the hatch taken off of No. 1? A. No, I did not.

Q. You never asked that, did you? A. No, I did not.

792 Q. So you never requested them to open up this hold and permit you to go down and take samples? A. No, I did not.

Q. You could have taken samples on the 24th when you saw it up at 134th Street? A. No, I could not.

Q. Why could you not? A. They went in on August 24th, I think the ship was working and taking out bales of cork wood from the square of the hatch, and it would be rather difficult to get down and sample the top tier of barrels.

Q. The representative of Koehler, Kemp & 793
Koehler took samples that day? A. He may have done it.

Q. If he could you could have? A. I don't remember having seen him take samples.

Q. Coming back to this report, did not the chemical company make a claim for loss against the underwriters on August 2d? A. No, no claim at all.

Q. How did your employers know then of this damage? A. It would be a poor underwriter who did not know what risks he had afloat.

Q. Your idea is there had not been any claim 794
for loss, but the underwriters had kept track of this ship and other ships? A. I could tell you how they would know. Presumably when the consignee gets a cable message about such and such a ship, there has a loss occurred, and the underwriters knowing of that particular cargo, he has a provisional declaration, and he then knows what risks he has afloat.

Q. Would he know before the consignee had informed him? A. As I said the consignee presumably gets a cable or some word that on a certain steamer they are shipping a given cargo.

Q. That is just a presumption? A. If I may 795
ask you, are you trying to determine why the underwriters appointed me?

Q. I am trying to determine if you know whether the Citro Chemical Company on or before August 2, 1920, had given notice of a loss to your employers; do you know or don't you? A. No, I don't know that.

Q. When did you first know of your own knowledge that this cargo was wet? A. When I first saw actually that it was wet?

796 Q. When you first knew, not when you first saw. A. I would know it definitely when I saw it, counselor. I would have to presume it before.

Q. You had known that it was wet on August 2nd, had you not? A. No.

Q. You had it on August 9th, did you not? A. On August 9th, I believe, one of the officers of the ship indicated that that was in the No. 1 hold and naturally we presumed it was wet.

Q. He told you it was covered with water? A. He told me there was an excess of water in the compartment.

797 Q. He said the citrate of lime was under the water, did he not? A. I don't know that he said it was under the water.

By Mr. Carpenter:

Q. Did not the steamship officials tell you that there was citrate of lime in holds 1, 2 and 3 when you first went aboard the ship, or before you first went aboard? A. I remember only one general discussion and I made no note. I think it was Captain Gilboy who indicated that the lemons only were being discharged at Pier C. I

798 don't remember whether I found anybody on the ship to talk to when I first went there.

Q. Did somebody on the ship, Captain Gilboy or the master or the mate, tell you that the citrate of lime was in holds 1, 2 and 3? A. I don't remember that.

Mr. Carpenter: That is all.

Mr. Sprague: Mr. Gore has sent those papers that he referred to this morning, and I ask to have these marked in evidence.

Mr. Carpenter: The same objection as I made on the Pfizer papers. 799

The Court: Yes, you may have an exception.

Libellant's counsel prays an exception, which is hereby allowed and sealed accordingly.

(Sealed.)

(Received in evidence and marked Exhibit C-16.)

Mr. Sprague: I now desire before recess, your Honor, to offer the depositions taken by the claimant, the first of Captain James Beeby. 800

The Court: How many depositions are there?

Mr. Sprague: Five depositions from the ship. There is also the deposition of Mr. Peet, a Lloyd surveyor, and the deposition of Mr. Ebsen. There are seven altogether. In addition to that I have several from Halifax and Montreal, four depositions from Halifax and one from Montreal. There are twelve altogether, as I recall it, five from the ship, four from Halifax, one from Montreal, and two which we had taken just before trial. Claimant rests. 801

The Court: How many witnesses have you, Mr. Carpenter?

Mr. Carpenter: Twelve.

(Discussion between Court and counsel.)

The Court: We will now take an adjournment until March 16, 1923, at 10:30 A. M.

802 **Depositions on Behalf of Willdomino.**

UNITED STATES DISTRICT COURT,

DISTRICT OF NEW JERSEY.

CITRO CHEMICAL COMPANY OF AMERICA,
Libellant,

—against—

THE STEAMSHIP "WILLDOMINO."

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803 CHARLES P. PFIZER & COMPANY,
Libellant,

—against—

STEAMSHIP "WILLDOMINO."

Depositions taken in behalf of the *Willdomino* at the office of Messrs. Hunt, Hill & Betts, 120 Broadway, New York City, October 8, 1920.

APPEARANCES:

804 MESSRS. HUNT, HILL & BETTS (MR. SPRAGUE) for claimant.

MESSRS. HARRINGTON, BIGHAM & ENGLAR (MR. LOUGHRAN and MR. SINGLE) for libellants.

It is stipulated that the testimony may be taken by a stenographer, signing, filing and certification being waived, stenographer's fees to be taxable.

JAMES BEEBY, being duly sworn and examined as a witness for claimant, testifies as follows: 805

By Mr. Sprague:

Q. Are you the master of the *Willdomino?* A. Ye

Q. How long have you been her master? A. Been on the *Willdomino?*

Q. Yes. A. From May 3rd this year.

Q. How long have you been master of British vessels? A. Off and on from 1914.

Q. What papers do you hold? A. Master's certificate.

Q. How long have you held a master's certificate? A. Twelve years. 806

Q. Before you were master of British vessels were you in the deck department as first officer? A. Chief officer for nine years.

Q. On what vessels? A. Elder Dempster, African Royal Mail.

Q. On various ships of the African Royal Mail run by Elder Dempster? A. Owned by Elder Dempster, that is Elder Dempster.

Q. How long have you been going to sea? A. 23 years.

Q. How old are you? A. 38.

Q. You joined the *Willdomino* as master just before she left Norfolk for Marseilles, didn't you? A. Yes. 807

Q. What was her cargo on that voyage? A. Coal.

Q. You discharged the cargo at Marseilles, did you? A. Yes.

Q. What did you do after discharging the cargo at Marseilles? A. Proceeded to Palermo.

Q. Did you take on cargo there? A. Loaded

808 a quantity of fruit at Palermo, proceeded to Messina.

Q. At Messina did you take on cargo? A. Loaded more cargo in Messina and proceeded.

Q. What cargo did you take on at Messina? A. Fruit, citrate of lime and lemon essence.

Q. Did you take on there the citrate of lime for which suit has been brought by Pfizer & Company and Citro Chemical Company? A. Yes.

Q. Were bills of lading signed for that citrate of lime? A. Yes.

Q. Who signed them? A. The agent.

809 Q. I show you this paper and ask you if you recognize it and if so what it is (handing witness paper)? A. Bill of lading for a consignment of citrate of lime, 335 casks.

Q. Is this your copy of the bill of lading? A. That is my copy of the bill of lading.

Q. How did you receive it? A. I received—I checked all these through with the mate's receipts with the agent, agreed to the amount, and then signed the manifest; usual thing.

Q. This was handed to you then as your copy by the agent at Messina? A. By the agent at Messina.

810 Mr. Sprague: I offer the bill of lading in evidence.

Mr. Loughran consents to the exhibits being marked consecutively without a separate number for the separate pages.

(It is marked Claimant's Exhibit A.)

Q. Referring to Claimant's Exhibit A, I ask if this is the bill of lading under which the citrate of lime belonging to Pfizer & Company was shipped? A. Yes.

Q. I show you this paper and ask you if you 811
can recognize it, and if so what it is (handing witness paper)? A. This is a bill of lading for 168 casks of citrate of lime given me by the agent at Messina.

Q. That was signed by the agent, was it? A. That was signed by the agent also.

Q. In your presence? A. Yes.

Q. Have you checked it over? A. I have checked it over with the mate's receipts.

Q. A copy was given you by the agent? A. Given me by the agent.

Q. Was this the bill of lading under which the 812
citrate of lime for which a libel has been filed by the Citro Chemical Company of America was shipped? A. That is the bill of lading.

Mr. Sprague: I offer the bill of lading in evidence.

(It is marked Claimant's Exhibit B.)

By Mr. Loughran:

Q. Whose signature is this? A. The agent's.

Q. Agent for whom? A. For the company.

Q. What is the name? A. Fratelli Bonanno. 813

Q. He is the agent for the steamship at Messina? A. Acting for the steamship at Messina, yes, sir.

By Mr. Sprague:

Q. When was your ship built? A. In 1918.

Q. Do you know by whom it was built—if you don't know state that you don't? A. I don't know.

814 Q. Can you give me her dimensions? A. Offhand, no.

Q. Have you a memorandum of your own? A. I haven't brought it with me, I didn't think it necessary.

Q. Will you obtain those dimensions and give it to me? A. Yes.

Q. At the time you took the citrate of lime on board under Exhibits A and B was your vessel in seaworthy condition? A. Yes.

Q. Hull and machinery? A. Hull and machinery.

815 Q. Did you have a full complement of men and officers on board? A. Yes.

Q. Was she fully provisioned and stored? A. Yes.

Q. Was your vessel classified by Lloyds? A. Class A-1, yes.

Q. Have you a certificate of Lloyds? A. Yes.

Q. Is this the certificate (handing witness paper); I show you this paper and ask you if that is the certificate you had on board when you sailed from Norfolk? A. That is the certificate that I had on board when I took over the ship.

Q. When you sailed from Norfolk? A. When I
816 sailed from Norfolk.

Mr. Sprague: I offer the certificate in evidence.

Mr. Loughran: Objected to as immaterial, not binding on libellants.

(It is marked Claimant's Exhibit C.)

Q. Are you familiar with the stowage of this shipment of citrate of lime? A. Yes.

Q. Where was it stowed? A. In number 1 hold. 817

Q. Lower hold? A. Lower hold, No. 1 lower hold.

Q. Did you go into the hold at any time while it was being stowed? A. I didn't go into the hold, no, the chief officer was down there frequently.

Q. The chief officer has charge of that matter? A. The chief officer has charge of the loading.

Q. Do you know who was tallying the cargo at the forward end? A. Third officer.

Q. Aft? A. The second officer assisted by shore clerks. 818

Q. Did you purchase any dunnage in Messina for the purpose of stowing the cargo? A. 1800 pieces of dunnage.

Q. Did that have anything to do with the shipment of citrate of lime? A. Bought specially for the shipment of citrate of lime.

Q. For what purpose? A. Stowing it.

Q. What kind of dunnage did you buy? A. Quoins.

Q. Have you a copy of the letter that you sent to your agent asking them for these quoins? A. Yes.

819

Q. Attached to that bill is your requisition, is it not? A. Yes.

Q. I show you these papers and ask you if those are the papers you refer to (handing witness papers)? A. This is the list of expenses sent through from the firm from Bonanno to my people on this receipt of mine which was given to Bonanno for services rendered in order to pay it.

Q. And that covers the 1800 quoins referred to? A. That covers the 1800 quoins referred to.

820 Mr. Sprague: I offer the papers in evidence.

(They are marked Claimant's Exhibit D.)

Q. Did you actually receive the quoins on board? A. Yes.

Q. Were they used in the dunnage of the citrate of lime? A. Yes.

Q. Was that a proper amount of dunnage for that commodity? A. Sufficient for the amount of barrels—casks.

821 Q. After you loaded your cargo, or part cargo at Messina, you sailed for Gibraltar, did you? A. Yes.

Q. Have you produced your log books in the deck department? A. Yes.

Q. Are these they (handing witness books)? A. Yes.

Mr. Sprague: I offer the three log books that cover the entire voyage.

Mr. Loughran: I object to their admission in evidence until it has been established that they are books kept by the

822 master on the voyage in question, until it has been established they were properly kept.

(The books are marked Claimant's Exhibit E 1, 2 and 3.)

Q. Showing you Claimant's Exhibit E1, I ask you if that is the true and correct log of the *Willdomino* for the periods of April 29, 1920, to June 14, 1920? A. Yes, sir.

Q. Will you look at the writing in the book, please, and state whose writing it is? A. The chief officer's, my signature. 823

Q. Is that book signed throughout at each page by the chief officer and yourself? A. Yes.

Q. You recognize the writing of the chief officer, do you? A. Yes.

Q. Where was that book kept? A. The chief officer's room.

Q. On the steamship? A. Yes.

Q. Was it in his custody and yours? A. In the chief officer's custody.

Q. And did you bring them from the ship to this office? A. Yes. 824

Q. I ask you now to look at Claimant's Exhibit E-2 and ask you whether that is a true and correct log of the *Willdomino* for the period from June 15, 1920, to August 2, 1920? A. Yes.

Q. Will you look at the handwriting in which the entries are made in that book and state whose writing it is? A. The chief officer's.

Q. Are you acquainted with that handwriting? A. Yes.

Q. Will you look and see whether or not it is signed on each page by the chief officer and yourself? A. (Looking at book) Yes, signed throughout. 825

Q. When were those signatures placed on that book? A. Every week.

Q. When the log is written up? A. When the log is written up.

Q. I show you Claimant's Exhibit E-3 and ask you if that is a true and correct log of the *Willdomino* from August 3, 1920, until her arrival and discharge of cargo in New York on August 22, 1920? A. Yes.

826 Q. Will you examine the handwriting in which the entries are made in that log and state whose handwriting it is, if you recognize it? A. The chief officer's, signed by myself.

Q. Will you state whether or not it is signed at the bottom of each page throughout by yourself and chief officer? A. Yes.

Q. All these books were kept on board the ship, were they not? A. Yes.

Q. And brought from the ship by you to my office? A. Yes.

Q. I shall ask you certain questions about your
827 voyage, if you do not recall of your own recollection what the dates and facts are you have a right to use your logs to refresh your recollection. Will you state, please, when you left Messina—use your log? A. Left Messina Friday, June 11th.

Q. What is your next port of call? A. Gibraltar.

Q. When did you arrive at Gibraltar? A. Arrived at Gibraltar June 16th.

Q. How long did you stay at Gibraltar? A. A day.

Q. What did you do there? A. Bunkered.

828 Q. How many bunkers did you take on? A. 400.

Q. What kind of coal? A. Mixture of Welsh and American.

Q. Good coal? A. Good coal, yes.

Q. Did you receive instructions from your owners by wireless at Gibraltar? A. By cable it was.

Q. Have you that cable, and if so is this it (handing witness paper)? A. That is the cable.

Mr. Sprague: I offer the cable in evi- 829
dence.

(It is marked Claimant's Exhibit F.)

Q. Gibraltar is the usual place of bunkering, is it not, for all points in the western Mediterranean? A. Yes.

Q. No bunkering stations at Messina, are there? A. No.

Q. When did you leave Gibraltar? A. On June 17th.

Q. What time? A. Noon.

Q. Where did you go from there? A. Lisbon. 830

Q. Portugal? A. Portugal, Lisbon in Portugal.

Q. When did you arrive at Lisbon? A. June 19.

Q. What time? A. 7 a. m.

Q. How long did you remain at Lisbon? A. Five days.

Q. What day and hour did you sail? A. June 24.

Q. At what time? A. 6:30 p. m.

Q. What did you do at Lisbon? A. Loaded cork and other merchandise.

Q. That was part of your cargo, was it? A. Yes.

Q. When you were at Lisbon state what occur- 831
red as far as your second, third and fifth engineers were concerned? A. The fifth engineer was laid up, got a doctor after him who said that a bone in his leg had not been set properly after the leg had been damaged by rifle fire over in France, and ordered him to be sent to a hospital for medical treatment.

Q. As to the second and third engineers? A. The third engineer contracted pyrrhoea during active service, he was supposed to be cured by the

832 hospital authorities but on seeing the doctor, the doctor ordered him home for hospital treatment.

Q. Was he also a veteran in the World War? A. Yes.

Q. What about the second engineer? A. The second engineer, through home troubles, his mind became unbalanced and a doctor refused to allow him to sail in the ship unless he had a caretaker; couldn't do that on the ship so I paid him off.

Q. Did the doctor give you a certificate to this effect? A. I only hold one, I had one, I gave that to the chief officer, I think, that was in regard to the fifth. The question of the men staying in
833 Lisbon, the consul advised that these men should agree to be paid off by mutual consent to enable them to go home and be doctored at an English Military Hospital.

Q. Was there an English hospital in Lisbon? A. There was, of a sort.

Q. Was it an adequate hospital in the opinion of the consul? A. No.

Q. You took this matter up with the British consul? A. With the British consul.

Q. And the British consul advised paying off the men and sending them back to England, did
824 he, for medical treatment? A. Yes, he ordered, he didn't advise.

Q. In view of the fact that the doctor had made this examination and report, could you have gone to sea with these men aboard? A. No.

Q. The *Willdomino* is a British vessel, is she not? A. Yes.

Q. Under the British law what do you do when you arrive in a foreign port?

Mr. Loughran: I object to the admission of evidence of any British law for any

reasons for the captain's actions at Lisbon, just let him state what he did. 835

A. Deposit my articles with the consul.

Q. Are you required to do this as a British ship? A. Yes.

Q. Under what regulations, if any? A. Board of Trade regulations.

Q. What do you have to do before you can clear from that harbor? A. The entry is made by the consul, pick up my official logs, my articles, and the ship proceeds to sea.

Q. You have to go to the British consul before you can sail? 836

Mr. Loughran: Objected to as to form, it is not a question of what the captain had to do, but what he did on this particular occasion.

A. Yes.

Q. Is that what you did in this case? A. That is what I did, yes.

Q. How many engineers are required on the steamship *Willdomino?* A. Four.

Q. How many do you carry? A. Five.

Q. Of these how many are engineers for the engineroom? A. Four. 837

Q. The other one is a deck engineer, is he? A. Yes, a deck engineer.

Q. And the deck engineer is called the fifth engineer? A. Fifth engineer.

Q. When you found that the second, third and fifth engineers would have to be paid off and placed in the hospital in Lisbon, and you did pay them off, what did you do, if anything, to obtain other engineers? A. I inquired from the agents,

838 from the consul, if it was possible to get British engineers.

Q. What was the answer? A. They made inquiries and found it impossible, none to be had.

Q. What did you then do? A. I then inquired for efficient Portuguese engineers.

Q. What reply did you get from your inquiry? A. They got me two.

Q. These two Portuguese engineers that were got for you, how old were they? A. The second was about 50, the third was about 27.

Q. Have you their names with you? A. No, I haven't, I am sorry.

839 Q. You have them on the ship, have you? A. I have them on the ship, yes, it is something I forgot.

Q. They are no longer connected with your ship? A. They left the ship to go home to Portugal.

Q. Upon arrival in New York? A. Upon arrival in New York.

Q. Did these men have certificates? A. Portuguese certificates.

Q. Did you see the certificates? A. I saw them, I don't understand Portuguese, the consul was

840 satisfied.

Q. Did you take them before the consul? A. I took them before the consul.

Q. What did he do? A. He looked over their papers, agreed that the ship could sail with the two Portuguese engineers.

Q. Were you present when he looked over the papers? A. Yes.

Q. Did he question the men? A. Yes.

Q. And he then allowed you to sail with these two Portuguese engineers? A. Yes.

Q. Having secured these two Portuguese engi- 841
neers you sailed from Lisbon? A. Yes.

Q. Are you required to carry a deck engineer? A. No.

Q. What are the functions of the deck engineer? A. Winches.

Q. Did you have any further cargo to take on board after leaving Lisbon? A. No.

Q. Was there any need of a fifth engineer before you arrived in New York? A. No.

Q. When did you leave Lisbon? A. June 24.

Q. What hour? A. 6:30 p. m.

Q. On June 29 you had a report from the
engineroom, did you not? A. Yes. 842

Q. Have you an entry in your log regarding that report? A. Yes.

Q. From whom did you receive this report? A. The chief engineer.

Q. Was the report oral or in writing? A. Oral.

Q. What did he state, in general? A. They had trouble with the engines, had to stop to repair them.

Q. Did your vessel then stop? A. Then stopped.

Q. How long did she remain stopped? A. 843
Until 11:45 on July 2.

Q. A period of about 3 days? A. About 3 days.

Q. Did you have a consultation with your officers and your chief engineer as to what should be done? A. Yes.

Q. What did you ascertain the trouble to be? A. Ascertained that the oil pump had broken, another oil pump which was working didn't pick up the oil and carry it to the main bearing, the bearings were burned out, and damage to the H P

844 rotor. After overhauling the chief engineer found he couldn't work the H P rotor, so we, compounding her, ran her on the L P rotor. As he had lost a lot of oil owing to the accident we decided to proceed to the Western Islands for repairs, coal, and oil.

Q. Did you then proceed? A. We proceeded.

Q. Did you finally arrive at Ponta Delgada in the Azores? A. Yes.

Q. At what time? A. July 3rd.

Q. What hour? A. 50 minutes after noon.

Q. Did you go in under low pressure turbines? A. Low pressure turbines, yes.

845 Q. On arriving at Ponta Delgada, called St. Michaels, what did you do? A. Called a survey.

Q. Who held that survey? A. Lloyds.

Q. Do you remember the names of the surveyors? A. May I have the certificate, I can't recall them.

(The certificate is produced.)

A. (Continued) Thomas Hood, John J. Frugleton.

Q. I show you this paper and ask you if you recognize it, and if so what it is (handing witness

846 paper)? A. The survey.

Mr. Sprague: I offer the survey in evidence.

(It is marked Claimant's Exhibit G.)

Q. After this survey was held and you received Claimant's Exhibit G, what did the vessel do? A. We carried out the repairs, when the repairs were completed to the engineer's satisfaction we proceeded.

Q. Were those repairs carried out on board the vessel? A. Part on board by our own engineers, part on shore by shore engineers. 847

Q. The engineer can state more in detail what those repairs were, can he? A. Yes.

Q. They were all in the engineroom department? A. Yes.

Q. Can you state in general whether St. Michaels has facilities for extensive permanent repairs to turbines? A. No, they have not.

Q. It is a comparatively small port, isn't it? A. Small port, small repair shop.

Q. The only shops they have there are small repair shops? A. There is only one we know of to take the work. 848

Q. Is that a small or large shop? A. Small shop.

Q. Is it capable of carrying out permanent repairs to turbines? A. No.

Q. Your vessel has turbines, has she? A. Yes, turbines.

Q. Will you look at your log, please, and state when you left St. Michaels? A. July 10 at 8 p. m.

Q. Were you using your high pressure or low pressure turbines? A. L P. 849

Q. Were you able to use your high pressure? A. No.

Q. Could you repair your high pressure turbines in St. Michaels? A. No.

Q. Why not? A. It is a very big job.

Q. Did they have any facilities for repairing high pressure turbines? A. No.

Q. Those turbines require skilled workmen and a large shop? A. A specialist, yes.

Q. Before you sailed did you take on any coal? A. 250 tons.

850 Q. Did you take on any oil? A. 12 barrels.

Q. Sufficient for you to reach North Sydney? A. Yes.

Q. What is the coal consumption of your vessel when running under both high and low pressure turbines? A. Between 40 and 43, according to the coal.

Q. I suppose the Welsh coal is better than American? A. Welsh is best.

Q. On Welsh you make it about 40? A. Yes.

Q. It averages from 40 to 43? A. Yes.

Q. What did you find was the coal consumption of your vessel while running on this voyage under
851 simply the low pressure turbines after leaving St. Michaels? A. Averaged between 43 and 45 tons.

Q. The coal consumption was higher? A. Higher.

Q. Is there a good reason for that, and if so do you know what it is? A. No, it is an engineer.

Q. It is an engineer question, is it? A. Yes.

Q. What about the speed of a vessel when travelling under high and low pressure turbines as compared with low pressure only? A. Loss in speed.

Q. There is a loss of speed in cutting out the
852 high pressure, is that due to the loss of expansion and force of the steam? A. Yes.

Q. And the engineer can explain in detail technically why that is true? A. Yes.

Q. That is an engineer question and not a deck question? A. Yes.

Q. How much coal did you have on board when you left St. Michaels—what book is this you are consulting? A. This is a list of the coal contained.

Q. Isn't that in your log? A. No.

Q. This is your memorandum? A. Yes, sir.

Q. You don't know from your recollection what you had and you are consulting this to refresh your recollection? A. Yes. 630 tons on leaving St. Michaels. 853

Q. What quality of coal did you take on at St. Michaels? A. Mixture of Welsh and American.

Q. Again looking at your log—you finally went into Sydney, did you, for coal? A. Yes.

Q. On what day and hour? A. July 22, 9:30 a. m.

Q. What did you find the conditions in North Sydney to be as to coal? A. Owing to labor trouble there was a shortage, the bay was full of ships waiting for coal. 854

Q. Were you able to obtain any coal? A. 62 tons was all we could get.

Q. Was that sufficient to take you to your nearest port where you could obtain coal? A. Yes.

Q. Which was Halifax? A. Halifax.

Q. After taking this coal at Sydney did you sail for Halifax? A. Sailed for Halifax, yes.

Q. What day and hour? A. July 23, 45 minutes after noon.

Q. What was the state of the weather when you sailed? A. Clear. 855

Q. Are you familiar with the coast from Sydney down to Halifax? A. Nova Scotia, no.

Q. Looking at your log, will you state in general what weather you had from the time that you left North Sydney until you had your stranding? A. (Reading from log) Clear weather until 8; first part, early part of the night clear weather, towards 8 o'clock set in thick fog.

Q. At 8 p. m. of the day in which you started? A. 8 p. m., yes.

856 Q. What did you do when the fog came? A. I hauled her off the land.

Q. Were you on the bridge yourself? A. I was on the bridge all the while.

Q. When did you go on the bridge, how long did you stay there? A. From the pilot leaving Sydney until she struck the following morning.

Q. You were on the bridge continually then from the time the pilot left the boat when you left Sydney until the time that she struck? A. Until the time she struck, yes.

Q. What was the weather from the time the fog came on until the time you struck? A.

857 Thick, very thick.

Q. What precautions, if any, did you take? A. Hauled her off the land, set an outside course.

Q. Anything else? A. Cast off the patent sounder.

Q. Your vessel is equipped, is she, with a sounding machine? A. Yes.

Q. Can you state the name and type of that machine? A. White-Thompson.

Q. It is called Deep Sea Patent Sounder? A. Deep Sea Patent Sounder.

Q. On what part of the vessel is that located?

858 A. The poop.

Q. Who had charge of the taking of the soundings that night? A. The chief officer.

Q. You hesitated a bit, are you certain about that, if you are not done state it? A. (Looking log.) The chief officer.

Q. Did you give him instructions to take soundings? A. I sent him out to take soundings.

Q. How often were soundings taken? A. Only taken once.

Q. What did those soundings show? A. 92 859
fathoms.

Q. What time were they taken? A. 4.30 A. M. on the 24th.

Q. The day after you left Sydney? A. The day after we left Sydney.

Q. Did you have the charts of the coast at that time? A. Yes.

Q. Did you compare this sounding with the sounding lines on the charts that you had? A. Yes.

Q. What, if any, conclusion did you come to after comparing the sounding with the chart? 860
A. I reckoned she was 20 miles off the land.

Q. What precautions, if any, did you take in regard to the speed of the vessel? A. Reduced speed.

Q. What else did you do? A. Kept the whistle going, followed out the Board of Trade requirement.

Q. Who was on the bridge besides yourself? A. The chief officer,—the officers of the several watches, quartermaster at the wheel, quartermaster on the lookout.

Q. Where was the quartermaster stationed as lookout? A. On the starboard side of the bridge. 861

Q. Did you have anybody in the forecastlehead? A. Two men in the forecastlehead.

Q. Were they sailors? A. Sailors.

Q. Did this fog continue? A. Yes.

Q. After you had taken soundings? A. Yes.

Q. What happened about 6.30 A. M.? A. The ship struck a submerged object.

Q. Were you on the bridge at the time? A. I had just gone down to my room.

Q. Just stepped off the bridge, had you? A. Just stepped off the bridge for my tea.

862 Q. Who was on the bridge? A. The chief officer.

Q. And also the quartermaster at the wheel? A. Quartermaster at the wheel, and one on the lookout.

Q. Did you feel the shock ? A. Yes.

Q. What did you do? A. Went up on the bridge.

Q. Did you observe anything ? A. No.

Q. What orders did you give, if any? A. Put engines astern.

Q. What other orders did you give? A. Close all sluice valves, swing the life boats out, en-

863 gines stand by.

Q. Did the engine room respond to your signal of reverse? A. Straight away.

Q. That was indicated on the telegraph, was it ? A. Yes.

Q. Did the vessel move? A. Yes, the vessel came off.

Q. How soon did she come off? A. Quarter of an hour.

Q. Did you give any instructions as to soundings? A. Ordered the third officer to take soundings.

864 Q. With what? A. Hand lead.

Q. Where did he take the soundings? A. Amidships and aft.

Q. Did he take any forward? A. No.

Q. What were the results of the soundings? A. 10 fathom amidships.

Q. How many fathoms astern, if you know? A. I don't know, it was deeper water.

Q. Could you observe through the water the reef, or the object on which you had struck? A. After I saw the engines astern, ordered the

sluice valves closed, I ran forward myself and saw something white under the water. 865

Q. What did you conclude the object was after you had looked at it? A. The blow was so soft I thought it was a submerged wreck.

Q. Did you think it was a wreck of any particular kind of boat? A. Wooden craft.

Q. Was it above the water or below the water? A. Below the water.

Q. How far below would you say it was? A. About 10 to 12 feet.

Q. Was your vessel loaded to her full deadweight? A. No.

Q. She was not loaded to her marks, was she? 866
A. No, a long way from it.

Q. The draft is stated in the log, isn't it? A. Stated in the log.

Q. On leaving Lisbon? A. On leaving Lisbon and Ponta Delgada, and at Sydney.

Q. What is it on leaving Sydney? A. 14'.7" forward, 16'.3" aft.

Q. What is her draft loaded to capacity? A. 24'.2½".

Q. So that she was comparatively light? A. Comparatively light.

Q. Did you send anyone to ascertain the 867
amount of the damage? A. Yes.

Q. Who? A. The chief officer.

Q. Did he make a report to you? A. Nothing to be seen.

Q. Did you have soundings made? A. Fore and aft.

Q. Any reports made to you? A. Water rising in the fore peak, No. 1 hold.

Q. Fore peak and No. 1 hold? A. Yes.

Q. Are the statements as to the amount of the

868 water stated in your log? A. Yes, 10 feet starboard, 21 feet of water on the port side.

Q. Is that the port side of hold No. 1, lower hold? A. Yes.

Q. How much did you say on the starboard side? A. 10 feet.

Q. Are you reading from the log? A. Yes. Fore peak filling, No. 1 ten feet starboard.

Q. It looks to me like 18? A. I beg pardon, it is 18 feet.

Q. Quite certain about that, are you now? A. Yes, certain.

869 Q. Did you have the bilges sounded? A. Every hour.

Q. What did the first sounding immediately after the collision, show? A. Showed she was carrying the water right through.

Q. By that time the sluice valves had been closed? A. They were closing.

Q. How are they closed on your vessel? A. With a key on the top deck, open a cap and a key fits on a socket.

Q. They were closed right down? A. Closed right down.

Q. Where you found 18 feet on the starboard
870 side and the 21 feet on th port, was the hold where the citrate of lime we are talking about now was stowed? A. Yes.

Q. After the vessel was backed off from this submerged object what did you do? A. Kept sounding the hold, found the water remained stationary, came to an anchor.

Q. How soon did you come to an anchor after you backed off—you may use your log right along? A. At 10.40.

Q. What were you doing in the meantime? A. Going astern.

Q. Using the lead? A. Using the lead all the while. 871

Q. Why did you stop at 10.40? A. I was in 36 fathoms, thought that was safe anchorage.

Q. What did you do after anchoring? A. Pumped out the forward tanks, filled up the after tanks.

Q. What was the purpose of that? A. To trim the ship, get the ship down by the stern, the propeller was out of the water.

Q. The propeller was almost entirely out of the water when you backed up? A. Yes.

Q. Did this better the trim of the ship? A. At 2.15 P. M. I hove anchor, made an attempt to steam away from the anchorage, found my ship unmanageable. At 5.20 I stopped her. 872

Q. That is 5.20 P. M.? A. 5.20 P. M.

Q. On the day of the stranding? A. On the day of the stranding

Q. Which was July 24th? A. Yes. I left her drift until we got into 32 fathoms of water and anchored again. Throughout the night were pumping at the forward tanks, filling up the after ones.

Q. Did the fog continue during that entire day? A. Clear at 8 P. M.

Q. Up until that time what was the condition of the weather? A. Very thick. 873

Q. Were you able to take any observations? A. No.

Q. When were you first able to take observations? A. We got bearings at 8 P. M.

Q. What did you get bearings from? A. Cranberry Island.

Q. What do those bearings show your position to be? A. Seven miles from Gannet Rock.

874 Q. Proceeding from that time on? A. 9.45 thick fog set in again; July 25 at 10.15 A. M. the after tanks were filled, all possible water taken out of forward tanks, hove anchor; it was then reported to me that there was a breakdown in the engineroom so I anchored again. At 3.40 P. M. the engines were repaired and we received a radio saying the Lady Laurier was coming to our assistance.

Q. That is a tug from Halifax? A. Yes, a tug from Halifax.

Q. And you sent out an SOS? A. I sent out an SOS, yes, asking the ship to stand by.

875 Q. Immediately after the stranding? A. Immediately after the stranding; when I found she was safe I told them there was no need to stand by.

Q. Did the Lady Laurier finally arrive? A. I got word of the Lady Laurier through Canso; 6.30 P. M. fog lifted.

Q. That is on the 25th, is it? A. On the 25th. I asked the Lady Laurier to give me her position and I would steer for it

Q. You were still using your own engines? A. Using my own engines. 8.15 P. M. hove anchor and proceeded towards Halifax; 10.30 P. M. Lady Laurier steamed alongside of us, convoying us On the 26th, owing to coal getting short, at 11.05 A. M. anchored off Beaver Island; Lady Laurier took is in tow.

876

Q. She towed you into Halifax, did she? A. She assisted, we were still under our own steam.

Q. What time did you arrive at Halifax? A. 2.12 A. M. July 27 came to anchor off Halifax.

Q. Were you able to navigate your ship at all successfully with this large amount of water in your No. 1? A. Yes, we could navigate.

Q. After you filled up the after tanks and emptied the forward tanks you got her propeller down, did you? A. Yes, not much. 877

Q. How did she navigate? A. Steered very wildly, we hadn't perfect control of her.

Q. You had not perfect control? A. No.

Q. What speed did you make while she was in that condition—is that your personal memorandum book you are consulting?

(Witness produces book.)

A. Yes.

Q. You have no recollection yourself? A. Five, five and one-half. 878

Q. Even with the water in the hold? A. Yes.

Q. Have you any explanation for the fact that you were about 7 miles off Gannet Rock when you thought you were about 20 miles off the coast, as you have testified? A. The only explanation is that there was an abnormal current or local compass attraction on the Nova Scotian coast.

Q. Is there a strong set-in there on that coast? A. There should not be, no, we get no record of it.

Q. Was your vessel under low pressure turbine still at the time she struck? A. Yes. 879

Q. What was her speed under low pressure turbine? A. Six and one-half.

Q. Were you making that speed, or less speed when you were going through the fog? A. Slightly reduced speed, not much, she is unmanageable with anything less than 5½.

Q. With that speed and a set-in is the boat more likely to be affected than as though she was going full speed? A. Oh, yes.

880 Q. Your regulations of the Board of Trade require you to go at reduced speed during fog, do they not? A. Yes.

Q. Was there any wind that night? A. Fresh.

Q. On what quarter? A. On the port bow.

Q. And the effect of that wind would be to set her in, would it not? A. Yes.

Q. What was the condition of your compass prior to this stranding? A. Good.

Q. Had you made the necessary corrections? A. Yes.

Q. You found it to be in good condition, reliable, haven't you? A. Reliable.

881 Q. How long before this time had you examined your compass? A. The day before.

Q. And you then found it in what condition? A. Correct, good condition.

Q. After arriving at Halifax what did you do? A. Noted a protest.

Q. You can use your log book if you desire to refresh your recollection on any matter. Were you met by Lloyd's surveyors? A. Yes.

Q. Did they made an examination? A. Yes, sent a diver down.

Q. They sent a diver down, did you say? A.

882 Sent a diver down to examine the damage.

Q. Have you a copy of the diver's report? A. Yes.

Q. Have you produced it to me and if so is this the copy (handing witness paper)? A. Yes.

Q. Where did you get that? A. From Lloyd's agent at Halifax.

Q. Mr. Moon? A. Mr. Hensley.

Q. Did he hand this to you? A. He handed it to me.

Q. What did he say to you when he handed

it to you? A. "Here is a copy of the diver's report." 883

Mr. Sprague: I offer the report in evidence.

(It is marked Claimant's Exhibit H.)

Q. He didn't give you the original? A. No.

Q. Did Lloyd's surveyor also give you a certificate on the vessel? A. Yes.

Q. Is this the certificate that was given to you (handing witness paper)? A. No, sir.

Q. What is this paper? A. That is the necessary repairs to be effected to the steamer to enable her to proceed on the voyage. 884

Q. It was given to you by Lloyd's agent? A. By Lloyd's agent.

Q. But it is not what you call the certificate of seaworthiness? A. No.

Q. This was given to you after examining the ship, it was handed to you by Mr. Hensley? A. Yes, that is the order of recommendations.

Mr. Sprague: I offer the order in evidence.

(It is marked Claimant's Exhibit I-1 and 2.) 885

Q. Lloyd's agent employed the wrecking boat, did they not? A. The *Maggie Marshall.*

Q. Did Lloyd's agent give you certain instructions? A. Yes.

Q. Following the recommendations which are Exhibit I? A. Yes.

Q. What did you do following their instructions? A. Followed out their instructions.

886 Q. You moved your vessel, did you? A. Moved the vessel alongside a wharf, moved the cargo from the forward end of the vessel to the after end of the vessel, stowing some on the wharf to expedite the work.

Q. What cargo did you take out of No. 1 hold? A. Sardines, lemons, cork.

Q. Those were stowed in the between decks? A. Yes.

Q. Were you able to take out any of the citrate of lime? A. No.

Q. Why not? A. It was full of water.

887 Q. The water entirely covered it? A. Entirely covered it.

Q. Were the underwriters' representatives on the cargo present? A. Yes.

Q. Did they make any recommendations, requests, or demands that you take this citrate of lime out of hold No. 1? A. No.

Q. Did you take any cargo out of hold No. 2? A. Yes.

Q. Was there water in hold No. 2? A. No.

Q. Why did you take the cargo out? A. To give them room to shore the No. 2 bulkhead.

Q. That had been recommended by Lloyd's,
888 had it not? A. By Lloyd's and the underwriters.

Q. This bulkhead had held? A. The bulkhead had held, yes.

Q. What else did you do after having removed this cargo as you have stated? A. We had a pump placed in No. 2 and ballast placed on the after deck.

Q. How much ballast was taken on the after deck? A. 400 tons.

Q. The purpose of that was to trim the ship, was it? A. To trim the ship.

Q. What was the purpose of the pump in hold No. 2? A. In case the bulkhead should carry away. 889

Q. Did you take on any coal at Halifax? A. 318 tons.

Q. Were Lloyd's agents continually in attendance upon the ship while you were at Halifax? A. All the while.

Q. Was there anybody there besides Lloyd's agents? A. Underwriters, Port Warden.

Q. What underwriters, do you know? A. Cargo underwriters.

Q. Do you remember who was there? A. I have this card here, there were quite a number of them representing the underwriters—I haven't got the cards. 890

Q. Do you know whether the London Salvage Association was there? A. Yes.

Q. You don't recall any other association or the name of any other representative? A. No, I don't, I had the cards aboard.

Q. You took their cards but you are not certain whether or not you have them now, is that correct? A. Yes.

Q. Will you look the next time you go on the vessel to see if you have them and if so bring them to me? A. Yes, one man represented several underwriters. 891

Q. You had on board this vessel a large amount of fruit, did you not? A. Yes.

Q. That of course was perishable cargo? A. Yes.

Q. You were anxious to get that to New York? A. Yes.

Q. After the temporary repairs that you have mentioned, shoring up of the bulkhead, had been

892 done, the things you have mentioned had been done, did you receive a certificate from Lloyd's surveyor, and if so, is this the certificate you received (handing witness paper)? A. Yes.

Mr. Sprague: I offer the certificate in evidence.

(It is marked Claimant's Exhibit J.)

Q. You finally sailed from Halifax, did you? A. Yes.

Q. What day and hour? A. August 3, 9:10
893 A. M.

Q. As you came down in tow of— A. The tug *Belbridge.*

Q. That was in conformity with Lloyds' recommendations? A. Yes.

Q. Did you also have your own steam? A. Came under our own.

Q. Low pressure? A. Yes.

Q. High pressure still out of commission? A. Yes.

Q. Did anything of special importance occur on the way down? A. No. When we got within
894 a safe distance of New York, we threw the ballast overboard to save the high expense of discharging it at New York.

Q. And you arrived in New York, did you, on August 7? A. Yes.

Q. 8:30 A. M.? A. 8:30 A. M. came to anchor.

Q. When did you dock? A. August 9, 10 A. M.

Q. That was at Pier C, Jersey City? A. Pier C, Jersey City.

Q. What did you do there? A. Discharged 895
lemons.

Q. Then what did you do? A. Went from there, August 19, 9:40 A. M., cast off Jersey City and proceeded to 134th Street, New York, to discharge cork.

Q. Had you been able to discharge the citrate of lime at any time? A. No.

Q. Why not? A. It was under water.

Q. What did you do after the discharge of cork? A. We haven't got the date down on here,—but we proceeded from there to Tietjen & Lang's drydock.

Q. And you went into drydock, did you? A. 896
Yes.

Q. Under supervision of Lloyds' agents? A. Yes.

Q. Did you see the vessel after she was put in drydock? A. Yes.

Q. What can you state as to the stranding damage? A. From the 5-foot mark down, and to the collision bulkhead, the whole structure was set back.

Q. The plates were curled right back, were they? A. Curled right back.

Q. That included the keel plate, too? A. The 897
keel plate, too; yes.

Q. You say right up to the collision bulkhead? A. To the collision bulkhead, yes.

Q. Where is that bulkhead in this ship, between the fore peak and No. 1 hold? A. Yes.

Q. And the collision bulkhead driven back? A. Yes.

Q. So everything was opened up to the bulkhead between 1 and 2 hold? A. Between 1 and 2 hold, yes.

898 Q. This vessel was in drydock, was she, until the new plates had been put on? A. Yes.

Q. Then what was done with it? A. Floated.

Q. What did you do then with the cargo of citrate of lime? A. Commenced to discharge it.

Q. You discharged it into lighters? A. Yes.

Q. Was there any opportunity to have discharged it prior to the time it was discharged into lighters? A. No.

Q. It could not have been discharged while it was in drydock, could it? A. No, an attempt, also suggestions made to try to get the stuff out
899 while in drydock, but it was not feasible.

Q. Why? A. The handling of it.

Q. Just state the reasons? A. It cost too much to handle it.

Q. In what way do you mean; you were in drydock? A. A high drydock, to get it from the drydock to a wharf, there were no cranes, nothing to lift it from the dock to the wharf; impracticable.

Q. Did Tietjen & Lang consent to your doing that while in drydock? A. No.

Q. Go back just a minute; at the time of the stranding, from the time of the stranding until
900 you arrived in New York, how often did you take soundings of your ship, both bilges and holds? A. Every hour.

Q. Throughout the entire period? A. Throughout the entire period.

Q. Did the water ever get back into the bilges, back of the bulkhead between No. 1 and 2? A. No.

Q. Your sluices were closed in time to save that, were they? A. Yes.

Cross examination by Mr. Loughran: 901

Mr. Loughran: Inasmuch as no answer has been filed, I will request claimant's counsel to state on what his defense is to be based so I can intelligently cross examine the witness.

Mr. Sprague: I am glad to give a statement of the claimant's defence, but I also call for a statement from libellant as to the respects in which they claim the ship was at fault.

Mr. Loughran: We can't state particu- 902
larly, we will furnish a bill of particulars if you require it, of the extent of the damage, but we suggest that the answers to the questions be taken up in the order that the questions are propounded.

Mr. Sprague: The libel of the libellants is extremely general in character and states simply failure to deliver the goods in the same condition in which they were received. It would seem only proper that before continuing further with this examination, claimant should be acquainted with the exact statement as to the respects 903
in which libellants claim the vessel was wrong and the crew and officers negligent, for which the ship is responsible.

Mr. Loughran: We consider it the improper time to have an adjudication as to the propriety of the allegations of the libel and will stand by the libel as filed, but as yet we have seen no answer and believe that we are entitled to a statement as to the general defense in the case.

904 Mr. Sprague: I still believe that the libellants should furnish a detailed statement of this claim as suggested above; however, I am perfectly willing to state in general, the grounds of the defense which are as follows: Any damage that occurred to the goods of the libellants in the two actions, in which testimony is here being taken, was caused by perils of the sea, for which the ship was not responsible, and grows out of damage due to the stranding of the *S. S. Willdomino*, as testified to by the master. The ship was sea-
905 worthy, properly officered, manned, and equipped at the time the goods were taken on board, and continued seaworthy. The bills of lading under which the shipment of the two libellants were made protect the ship as against any of the contingencies that happened throughout the voyage. That is a mere general statement; I haven't had any request for such a statement prior to this time, consequently have not prepared for it, but in general that is our case. We also claim that in the event
906 there is any liability whatsoever, it is restricted by the agreed valuation clause.

Q. Have you a plan of the stowage of the steamer of this voyage in question? A. Yes.

Q. Have you it with you? A. Yes.

(Witness produces plan.)

Q. Kindly refer to it and describe the various kinds of cargo put aboard the vessel at the be-

ginning of this voyage, and in general the location in which they were stowed? A. Citrate of lime, No. 1; lemons, No. 2; half of the hold divided; the other half of No. 2 hold was cork. The idea was that the lemons must have plenty of ventilation; they were stowed slack, about so much space left where possible between the 5th or 6th tier (indicating about 10 inches), so the air could circulate through. No. 3, bunker spaces; the hold down below was cork and citrone. 907

Q. That means the fresh fruit? A. I take it to be, they squeeze the lemons into small barrels.

Q. Citrone? A. Citrone. In lower hold No. 4, lower part pumice stone, on top of that filberts, on top of that cork; on the after part of No. 3, divided evenly in half, cases of lemons, with the same idea of ventilation; No. 4, lower hold cases of lemons, essence of lemons on top, cases of lemons on top of that again and then cork; in No. 4, between deck citrate of magnesia; No. 3, between deck in the forepart, cork; on the after part acetic acid. 908

Q. So that a good portion of your cargo was fresh fruit, of a perishable nature? A. Yes.

Q. When you say a good part of your cargo, do you mean regarding the volume of space it occupied on the vessel, weight, or value of it? A. Space it occupied. 909

Q. Do you know anything about the value of the lemons as compared with the value of the other part of the cargo? A. No.

Mr. Sprague: I object to any question as to any cargo excepting that for which the action is brought, and move to strike out the answer.

910 Q. When you started at Messina, how many men constituted your crew? A. 50.

Q. Including the officers, is that? A. Yes, everybody.

Q. Do you know how many cases of lemons you had on board?

Objected to.

A. No.

Q. Approximately?

Mr. Sprague: Same objection as given
911 before, not within the issues, incompetent, irrelevant and immaterial.

A. No, not without looking up.

Q. You might look it up if you have your memorandum? A. (Looking at book.)

Mr. Sprague: I understand about 45 thousand.

A. About 45 thousand.

Q. You stated that at Messina you sent a letter to your principals regarding the quoins that
912 were furnished, and these quoins are described as cord wood, were they simply pieces of cord wood? A. Pieces of cord wood.

Q. They were not fashioned to any particular shape? A. No, usual stowage for casks.

Q. Who had charge of the stowage at Messina? A. The stevedores, under the supervision of the chief officer.

Q. Did you personally have anything to do with the stowage, or dunnaging? A. No, I looked down in the hold.

Q. Were you present while the loading was in 913
operation? A. From the shore to the ship.

Q. Casually, that is all? A. Yes.

Q. Did you have any trouble with your engines going from Messina to Lisbon? A. No.

Q. Went on both high and low pressure turbines there? A. Yes.

Q. Then the first trouble you encountered was after you sailed from Lisbon, was it? A. After we sailed from Lisbon.

Q. You testified you sailed from Lisbon on June 24; what was the first day you noticed you were delayed by trouble with the engines? A. 914
The 25th.

Q. That is the first entry you have? A. Yes.

Q. I ask you to refer to page 25 and read what entry you have there regarding the engine trouble? A. 9:10 A. M., stopped for engineer's purposes; 11:10 A. M., engines proceeding full speed; 11:20 A. M., engines stopped for engineer's requirements; 4:35, repairs perfected, engines proceeding full speed.

Q. Then the next day how much engine trouble was encountered the 26th? A. On the 26th at 10:20 P. M., engines stopped, engineer's purposes; June 27th, 6 A. M., repairs perfected, the engines 915
full ahead.

Q. And that continued off and on until when?

Mr. Sprague: Objected to, there is not any testimony that it did continue off and on.

Q. Read on the entries every day from the 26th until you stopped to make repairs, in so far as it relates to engine trouble? A. June 28th, 8:25,

916 engines stopped, 8:30, full ahead; on June 29th, 1:05 P. M., engines stopped, 1:14 P. M., engines full ahead, 1:20 P. M., engines stopped and continued stopped until 11:30 A. M., on July 2nd.

Q. Where were you then? A. To the northward of the Western Islands, St. Michaels.

By Mr. Sprague:

Q. Have you your location then, if so, put that in? A. She was drifting south all the time, 41.26 north, 25.56 west.

917 *By Mr. Loughran:*

Q. You put in at Ponta Delgada for repairs? A. Yes.

Q. During this time, from June 25th to July 2nd, had you shut off the high pressure turbine and were running only on the low? A. The ship was stopped altogether.

Q. The ship was stopped from June 25th, on? A. No, from June 25th to 29th she was running on both engines.

Q. And then from the 29th to July 2nd? A. She was dead stopped.

918 Q. So none of that time did you run on low pressure alone? A. No; started running on low pressure July 2nd, at 11:45, but after consultation with the chief engineer, and chief officer, I decided to put into St. Michaels for repairs, oil and bunkers.

Q. Did you run on both engines then? A. No, only one, the LP.

Q. About what speed can you make on the LP? A. 6½.

Q. That is the best? A. Yes, with safety. 919

Q. The average speed might be a little less than that? A. We will call it the average.

Q. I believe you stated that at Ponta Delgada, or St. Michaels, there was no shop there capable of doing permanent repairs, so that you could not repair the high pressure turbines? A. Could not repair the high pressure turbines.

Q. Did you ever hear of the shop at Fayal? A. Yes.

Q. McVickars? A. Yes.

Q. What kind of shop is that? A. It has a very poor name in sailing directions.

Q. Do you know how far it is? A. I would 920 not like to say offhand.

Q. Did you consider going there for repairs at all? A. No; St. Michaels is the principal port in Western Islands.

Q. We will go back to Lisbon for a minute. The 2nd, 3rd and 4th engineers were paid off and allowed to go on the doctor's advice there, is that true? A. No, consul's orders and medical certificate.

Q. You had no discretion in the matter? A. None whatever.

Q. Did you take that matter up with your 921 principals or owners at Lisbon, the matter of replacing the crew? A. Yes, it was through the principals in Lisbon I was able to get the Portuguese engineers.

Q. That is, they told you to take these; you don't mean the principals at Lisbon? A. Principals at Lisbon; yes.

Q. Have the owners of the boat representatives at Lisbon? A. We have an agency.

922 Q. And he said it would be all right to take on these? A. It has nothing to do with him, that is purely the consul for filling the requirements for the ship to be seaworthy.

Q. Then you took on these Portuguese engineers; how many were there? A. Two.

Q. You don't know what papers they had to qualify them? A. They were in Portuguese, the interpreter in the British Consul's was quite satisfied they were competent engineers, they held discharges, the second engineer had been chief in Portuguese steamers, the third engineer had been
923 second in Portuguese steamers.

Q. This is what they told you? A. Verified by the consul.

Q. Before you took this step, did you get in touch with Esplin at Lisbon? A. No, this happened the day before I was ready to sail.

Q. Did you make any effort at that time to obtain competent English engineers? A. Yes.

Q. What effort did you make? A. Went to the Portuguese shop where they had English engineers, one or two were offered extra money if they would take the trip across; they refused to take the job.

924 Q. How long would it have taken you to have obtained English engineers at that port? A. 10 days.

Q. You were anxious to proceed on your voyage? A. Anxious to proceed on our voyage owing to the perishable cargo in the ship.

Q. The lemons? A. The lemons.

Q. What, in your opinion, was this perishable cargo you mentioned worth as compared to the rest of the cargo?

Mr. Sprague: I object to all questions along this line for the reasons already stated. 925

A. I haven't the faintest idea.

Q. Was your reason simply that you did not care to have decomposing cargo on the ship? A. I didn't care to damage any of the cargo, my business was to get the steamer along, deliver the goods the same as I received them.

Q. All the cargo? A. All the cargo.

Q. And the only cargo you could see which might be undergoing depreciation was this perishable cargo that you mentioned? A. Yes. 926

Q. What was the temperature approximately at this time while you were at Lisbon?

Mr. Sprague: Will your log show that?

A. Somewhere between 60 and 65.

Q. Not especially warm weather? A. No; I am sorry I made a mistake, around 80.

Q. Have you any entries in your log as to the temperature of the air at that time? A. Not in my log, in the engineer's.

Q. Have you the engineer's log with you? A. No. 927

Mr. Sprague: The engineer will produce it.

Mr. Loughran: I ask for the production of the engineer's log.

Mr. Sprague: It will be produced when the engineer is examined.

Q. Have you carried cargoes of lemons before? A. No, not lemons.

928 Q. Any fruit of like nature? A. Yes.

Mr. Sprague: I object to the entire examination on the subject of lemons as incompetent, irrelevant and immaterial.

Q. How long a time, in your opinion, can a cargo of lemons be in transportation without being seriously damaged?

Mr. Sprague: Same objection.

A. A length of six weeks.

929 Q. That is under the conditions prevailing at the time of this voyage?

Same objection.

A. Under good conditions.

Q. Do you know the value of a case of lemons?

Same objection.

A. No.

Q. You have absolutely no idea of the value of a case of lemons?

930

Same objection.

A. No.

Q. This survey that was made at Ponta Delgada recommended that the engines have a general overhauling before proceeding to sea. Did the engines have a general overhauling? A. Overhauled by the ship's engineers.

Q. And by any other shore engineers? A. No.

Q. Then what time did you leave Ponta Delgada? A. July 10th, at 6:30 P. M.

Q. And the next day, did you testify the engines broke down again? A. Yes, 8 A. M. to 50 minutes past noon, 12:50. 931

Q. What was the cause of the breakdown originally?

Mr. Sprague: You mean the one on June 29th?

A. It is an engineer's question, but I can, so far as I have heard from the engineer, give that.

Mr. Sprague: Objected to if it is not within his own knowledge. 932

Q. In a general way, state the cause?

Mr. Sprague: Objected to unless he can state that he knows; I have no objection to giving a general statement.

A. The cause of the breakdown, the oil ceasing to run and lubricate the bearings on the rotors, thereby melting the white metal and putting the engines out of alignment.

Q. What was the cause of the second breakdown after the repairs had been made at St. Michaels? A. Pumps. 933

Q. Oil pumps? A. No, the Weir pump.

Q. And the continuous trouble was caused by trouble to this Weir pump, or to the absence of oil, or did the absence of oil reappear? A. No, that never reappeared, only the Weir pumps after that.

Q. Did any other breakdown of a different nature occur? A. The steering gear.

Q. In connection with the engines? A. No.

934 Q. Is this the log, the deck log that has been kept as the events transpired, or the chief engineer's log, is that the smooth log copied from the scrap log (indicating)? A. Yes.

Q. Did I understand it was written up every week? A. Yes.

Q. Do you write them up every week from memory? A. The chief officer writes it up every day, passes the book every week to be signed.

Q. Have you any rough or scrap log? A. It might be.

Q. Don't you know? A. Yes, I think they did
935 keep one, but I don't know where it is.

Mr. Loughran: I ask that it be produced. The scrap log on which the information in this log is compiled.

Q. When was the last you saw of it? A. When we first got into New York.

Q. You have not seen it since you got into New York? A. No.

Q. What is the custom in regard to this rough log when you come to port, is it turned over or put in somebody's custody? A. No, it becomes
936 useless, after it is copied it is of no use whatever.

Q. Even though that is the record of the events transpired from day to day, jotted down as they happened, you consider that as useless after the smooth log is once made up, do you? A. Yes.

Q. Do I understand this is made up daily and is so complete with the exception of your signing, which is done every week? A. Yes.

Q. That is the log is made up and at the end of the week you put your signature down seven times on as many pages? A. I read them through, yes.

Q. With no other change. By the bills of lading, captain, you agreed to carry this cargo to New York and deliver it, when did you first decide to change your course to Sydney instead of New York? 937

Mr. Sprague: Objected to, there is no evidence he did decide to change his course to Sydney.

A. It really didn't require much alteration of course to head for Sydney, we were making the Great Circle so it was after I went to haul down to New York I merely kept on my course to Sydney. 938

Q. Your destination was New York, when did you change that ultimate destination and go to Sydney is what I want to know? A. About July 16.

Q. Then up to July 16 you had no intention of going to Sydney? A. I always had Sydney in the back of my head in case I was short of coal or anything happening to the ship, any engine defects or anything turning up.

Q. But up to July 16 you might just as well have intended to go to Halifax as Sydney or any other as a port of refuge? A. Not for a port of refuge, for bunkers, Halifax, Sydney, or Lewisburg. 939

Q. Any other port? A. Any other port for coal.

Q. Who is that decides the amount of coal to be taken on the voyage? A. The captain and the chief engineer.

Q. In consultation? A. In consultation.

Q. Did you have various consultations with the

940 chief in regard to the voyage in question during the voyage? A. Yes.

Q. At what time did you notify the chief that it was your orders that the vessel head for Sydney instead of New York? A. I don't notify the chief that we are heading for any particular port at all.

Q. Who decides? A. I decide.

Q. Then you don't tell the chief how to prepare to put through this voyage? A. No, we decide, the chief tells me so much coal left, I work out what she is doing per day, come to the conclusion there might be a shortage, so considering for
941 safety sake it was best to head for North Sydney and rebunker.

Q. When you left Ponta Delgada you and the chief had the intention of going to New York, did you not? A. Make New York if possible.

Q. Have you the figures regarding this quantity of coal aboard in your memorandum that you have with you, that induced you to change your mind on July 16 and head for Sydney instead of New York? A. No, I have not.

Q. Where are those? A. Well, I don't think there is any, there is no record kept of that.

942 *By Mr. Sprague*:

Q. Those would be kept in the engineer's log, wouldn't they? A. That is not necessary.

By Mr. Loughran:

Q. Had you made any other voyage on the boat on which you ran on low pressure engines? A. No, not on the turbines, I have run with triple expansion engines.

Q. I mean with this ship? A. No. 943

Q. What was her average speed with both engines running as they should run? A. 8.09.

Q. And the best she could make on the low pressure cylinder was what? A. 7, 7½.

Q. Then the other high pressure cylinder added only from half a knot to a knot and a half to her speed, did it? A. Yes.

Q. As a matter of fact what average speed did this vessel make on the voyage from Ponta Delgada to Sydney? A. 6½.

Q. At the time you left Ponta Delgada you had already decided you were only to run on low pressure in order to get over here as quickly as possible, had you not? A. Yes. 944

Q. How far is it approximately from Ponta Delgada to New York? A. 2,099 miles.

Q. Is that the Great Circle course, or the rhumb line? A. The Great Circle course.

Q. Do you steer generally the Great Circle course? A. The Great Circle course.

Q. On this voyage over how many tons of coal did you burn a day, on the voyage going from Ponta Delgada to Sydney? A. It is in the engineer's log.

Q. You have not that right now? A. No. 945

By Mr. Single:

Q. You state that when you left Ponta Delgada you left for New York on the Great Circle course? A. Yes.

Q. And that upon July 16 you changed your destination from New York to Sydney? A. To Sydney, yes.

Q. I understand that the engineer's log states that the voyage was to be made from Ponta Del-

946 gada to New York, whereas your log states when you left Ponta Delgada you were going to Sydney, how did that discrepancy occur?

Mr. Sprague: I object to the captain being asked to show a discrepancy or to reconcile discrepancies between his log and counsel's understanding of what someone else's log states.

A. The ship was cleared for New York. I can't understand, I don't know why the alteration was in the log unless it is that the chief engineer has
947 been careless in writing it up, or the mate has been careless in writing his up.

Q. Does the chief engineer save his log and write it up at the end of the week? A. I don't know.

Mr. Sprague: I object to the inference, also this is not written up each week, he says it is written up each day and he signs it at the end of the week.

Q. You have been on board with this same engineer before? A. No.

948 Q. This is the first voyage? A. Yes.

Q. Did he go over with you? A. Yes, he had been in the ship quite a while.

Q. This was your first voyage? A. Yes, this is my first voyage.

Q. If you had been going to leave Ponta Delgada direct for Sydney would you have taken the same course? A. It would have been different.

Q. Would not you have gone north of Fayal, taken a bigger swing? A. Yes, I would have gone through here (indicating).

Q. So you really were started for New York? 949.
A. Really were started for New York, I cleared for New York in the first place, with Sydney, Lewisburg or Halifax in view should we be running short of coal.

Q. Why should you have to have those things in view in case of running short of coal, is that a case of accident or didn't you take enough coal for the voyage? A. I took sufficient coal to carry me to New York.

Q. That is, was that your estimate or the chief engineer's? A. The chief engineer's and mine.

Q. You mean under ordinary circumstances— 950
had your vessel been working all right? A. Yes, the weather all right, allowing for running on the LP, I took the chief engineer's estimate of the amount of coal she would burn per day running on the LP. On this we ordered 250 tons of coal.

Q. What was his estimate? A. 50 tons, he thought about 50 tons a day, he hoped it would be less.

Q. When had the engine broken down before you got to Ponta Delgada, how long from the time it broke down when you cut out the high pressure until you got to Ponta Delgada, were you able to make anything from that? A. You 951
mean the coal consumption?

Q. Yes. A. No.

Q. That was two days? A. No, a day and a half.

Q. You don't know just what coal was consumed? A. No.

Q. You can't tell from your log either? A. No, it is not in mine, it is in the engineer's.

Q. You said you took the amount of coal the chief engineer estimated would be required? A. Yes.

Q. Did you just take enough to figure out? A. No, two days extra for New York.

952 Q. You figured you had two days' extra supply? A. To make New York.

Q. And after you had been out for five days you found out you were going to run short and then you set your course for Sydney? A. Yes, we were making such poor headway I decided to go to Sydney.

Q. You went to Sydney for coal? A. I went to Sydney for coal.

Q. When you got to Sydney did you take on coal? A. Yes.

Q. How much? A. 62 tons.

953 Q. How much did you have on board when you arrived? A. 62 tons.

Q. That made 124 tons? A. Yes.

Q. Did that make enough to take you to New York? A. I couldn't get any more, sufficient to take me to Halifax.

Q. Is that port regulation? A. Labor troubles, the bay was full of shipping waiting for bunkers, waiting for cargo coal.

Q. Was it a question of premium or just a question of getting the coal? A. The coal given to me was given as a favor.

Q. So you set out intending to go to Halifax
954 from Sydney? A. Rebunker for New York.

Q. You had 124 tons, is that enough to reach Halifax? A. Plenty.

Q. How much did you have when you reached Halifax? A. Four tons, but I had an accident and three times attempted to get up steam, which uses lots of coal.

Q. You let the steam run down? A. After we came to anchor we had to let it go, we kept sufficient to run the pumps if necessary.

Q. Had you ever been over the course from Sydney to Halifax before? A. Yes.

Q. That is, you have been up and down several times? A. From Sydney, no; from Lewisburg to Halifax, yes, and from St. Johns to Halifax. 955

Q. I believe you testified that at the time you struck your reckoning showed you were 20 miles out, whereas you were 7? A. I judged we were 20 miles.

Q. I just arrived at that time, I don't recall what you thought you struck, a rock or wreck? A. Submerged object.

Q. Couldn't you tell by your soundings whether or not you were on a submerged object? A. I had 10 fathoms when she struck alongside amidships. 956

Q. Haven't you figured out your position, aren't you able now to tell whether or not that was an extension of the reef that runs out at that point, or do you figure it was still a wreck or something? A. No, I am of the opinion now she touched the ground.

Q. She was on the extension of the reef? A. Yes, but I would not like to swear to that.

Q. You have expressed that opinion, haven't you? A. Yes.

Q. I believe you stated that the only way you could account for being that far off your bearings was by reason of the set of the tide or the wind or possibly thought with your compass due to certain magnetic influences? A. On the Nova Scotian coast. 957

Q. Can you tell from your log what bearings you took, from where you lay your course at Sydney, what departure you took? A. At 5:45 p. m. July 23, Scutari Lighthouse abeam 4 miles distant.

Q. This is leaving Sydney, is it? A. No, that

958 is after rounding the point, rounding Scutari point.

Q. What kind of bearing did you take, what kind of departure? A. Regular lighthouse.

Q. 4 point bearing? A. 4 point bearing rounding Scutari 4 miles out, at 8 o'clock set the course S 70 W.

Q. That should have taken you 20 miles, was it a direct course or did you have to change your course until you struck? A. Had to come around, change the course again, you can see by the chart.

Q. Will you tell us what other bearings you took? A. At 8 o'clock thick fog came.

959 Q. That was the only bearing you got? A. That was the only bearing we could get.

Q. Then where was your next change of course? A. 9 o'clock, S 65 W.

Q. You were on that course at the time you struck? A. Until 4:30 a. m. took cast of the patent sounding and altered the course.

Q. You took soundings? A. At 4:30 a. m. on the 24th.

Q. And charted your position from the soundings? A. Yes.

Q. How many soundings did you take? A.

960 One.

Q. What did you find? A. 92 fathoms.

Q. You attempted to rechart your position from this one sounding of depth? A. Yes.

Q. Did you take a sounding that would have brought up some of the bottom? A. They all bring up the bottom; got mud and sand, altered the course to S 87 W.

Q. Do you have a chart that you work that out on? A. Yes.

Q. Is it on the ship? A. Yes.

Q. Showing your positions and your courses, 961
distances? A. No, we don't keep the courses, we could see from the log here.

Q. Haven't you got those laid off on a chart that you have on the ship now? A. Yes, but they are longer, if we kept them on the chart we use we would have to get a new chart every voyage; when we finish that we rub it out; these are no use when we are around here.

Q. Who figures your courses and distances for you? A. I do.

Q. You figure them yourself? A. Yes.

Q. You were up and figured this at 4:30 in 962
the morning? A. Yes, I was on the bridge all night from leaving Sydney.

Q. During the fog? A. Yes.

Q. The vessel struck at 6:30 a. m.? A. 6:30 a. m.

Q. It had been two hours since you had taken a sounding, had it? A. Yes.

Q. And you were making 5 to 5½ knots an hour? A. 5 to 5½ knots an hour.

Q. I believe you stated that the vessel when she struck struck softly, is that right? A. Yes, softly.

Q. Weren't you surprised to find the extent of the damage? A. Very much surprised.

Q. How do you account for that? A. Must 963
have been something very, very sharp, no great way on the steamer, or the metal in these days is not as good as it used to be.

Q. Wouldn't you expect a greater jar than that? A. I certainly would; the chief engineer stated to me that he had a cup of tea on the arm of his chair at half past 6, a full cup of tea and it didn't even spill any; I didn't see that, he simply made that statement.

Q. I believe you have a wireless on your ship? A. Yes.

964 Q. What is the distance you can get with that wireless? A. Well, we have had as much as 1,000 miles.

Q. Were you in touch with the owners during the voyage between Ponta Delgada and Sydney with wireless? A. Yes.

Q. Have you a record of the messages that were passed between you and those received from the owners? A. Yes.

Q. Those are all on the ship? A. Yes.

Q. And can be produced? A. Yes.

Mr. Single: I asked that they be pro-
965 duced at the next hearing.

Q. Do you recall at this time whether or not sometime about July 16 you sent a wireless to the owners that you were changing your course to Sydney? A. Yes, I did.

Q. Did you ask them to make any arrangements for coal at Sydney—you simply notified them you were changing your course? A. Proceeding to Sydney, yes.

Q. As soon as you struck I understand you sent out an SOS, was that a general SOS? A. That was a general SOS.

966 Q. Did you at the same time send a wireless to your owners that you had struck? A. No, Lloyds, my agents at Halifax, who I knew would inform the owners.

Q. Did you in that wire give any data as to soundings that showed your damage, or simply said you were aground? A. I was clear, afloat, when I sent the message.

Q. Did you ask them to send any wrecking aid?

A. No, first I asked for a tug and pilot to see me safe into Canso; I got in touch with Canso; when I found she was not increasing the water in No. 1 hold, staying at 21 level, I cancelled the request for a tug and pilot and told them the steamer was all right. After making the second attempt to get away, when the valve spindle broke, I then asked assistance from Halifax. The idea of that was I wanted to be escorted down in case I ran short of coal, but the engines were in quite all right condition when she came off the rock. 967

Q. You testified, I believe, that you read over the logs very thoroughly before you signed them? A. Yes. 968

Q. How thoroughly would that be? A. Read every article, every entry.

Q. When you read the entry first with regard to the depth of water in No. 1 hold did you think it was 10 feet on one side and 21 at the other? A. No, I was at the sounding myself, 18 and 21.

Q. That is just because you could not read the log, was it, slip of the mind? A. I suppose my mind was away, I see it now.

Q. Were you aware of the stowage and where the cargo had been stowed? A. Yes. 969

Q. You get the stowage plan? A. The chief officer kept that.

Q. It was always available to you? A. Always.

Q. At the time the vessel struck and she filled with water in No. 1, were you interested in what cargo had been wet, did you look at the stowage plan to see what was in there? A. Certainly.

Q. At the time what did you think?

970 Mr. Sprague: I object to what he thought, there was nothing to think, full of water.

A. I couldn't think anything at all.

Q. It was just a question of saving the ship, getting the ship into port? A. A question of saving the ship.

Q. What was the cause of the breakdown after the stranding? A. Valve spindle.

Q. What is that? A. That is a valve they open to put steam into the engine, the rod, it is in this shape (indicating), a valve on the bottom, you
971 could unscrew it but the valve would not lift.

Q. How had it been carried away? A. Wear and tear or just accident, I can't explain, an engineer can explain that.

Q. I believe you stated that the ship steered wildly, on the way down you had rather a hard time steering her? A. Yes.

Q. Because of the fact that the ship was deep by the head? A. Yes, deep by the head.

Q. You had called for this vessel to stand by because of the opinion that if you had heavy weather you might have a great deal of trouble?
972 A. Saving life.

Q. You mean you might be in danger of sinking in case of heavy weather? A. Yes.

Q. You could not tell when the No. 2 bulkhead would break? A. No, the idea was to save life if possible—do you mean from anchorage to Canso?

Q. From the anchorage when the Lady Laurier came alongside? A. Yes, the idea was she might run short of coal on the way down and want something to tow us; had been using coal all the

time in attempting to get away; the coal supply was running down then. 973

Q. Just what do you keep in your personal memorandum book? A. This one?

Q. Yes. A. Here there are only ports I have been to.

Q. You didn't keep memorandums as to coal and things of that sort? A. No, that is the engineer's.

Q. I believe that you testified that you made from 6 to 6½ on the way from Ponta Delgada to Sydney, and that when your ship was down by the head you were making 5 to 5½? A. Yes, 5 to 5½. 974

Q. You have no explanation to offer how you happened to strand except the possibility of mistake in reckoning due to the tide or wind? A. Wind and tide.

Q. Didn't you make any allowance for either of those? A. I hauled her out, yes.

Q. But you don't know how to explain it yourself?

Mr. Sprague: Objected to, he has explained it.

975

A. Beyond the fact that there might be a local attraction around Canso, Nova Scotia, an abnormal current.

Q. If you hauled her off you didn't haul her off enough?

Mr. Sprague: Objected to as entirely argumentative.

A. Apparently not.

976 Q. Where did you think the course of S 87 W would bring you, where had you figured that would bring you, that was almost due west, you knew there was land somewhere around? A. That is an error there, that is not a true course.

Q. That is magnetic? A. No, that is the compass course.

Q. What would be your true course? A. I haven't the deviation book, I would not like to swear.

Q. Was it quite material? A. May I see your chart (looking at chart); I can only give it approximately.

977 Q. That is all? A. 62.

Q. There is a difference of about 25? A. 25 degrees.

Q. Is that 25 east? A. 25 west.

Q. You say that your chart showed no tide at that point? A. No.

Q. The wind was just simply a fresh wind? A. Fresh breeze.

Q. I believe you stated that the day before you had examined your compass and found it correct? A. Correct magnetic, the deviation book is kept on board the ship.

978 Q. What date would that be, the day before you struck? A. I couldn't swear but I think it was the night before we struck Sydney.

Q. You were travelling against fog, what did you correct your compass by? A. In dense fog you can't correct it.

Q. I know, how did you test it so as to be able to state that you found it correct? A. The compass had been running correct magnetic on those courses for quite a while.

Q. But how did you know that your compass

was correct, in order to state whether the compass is correct you must have a bearing or sight either of the sun, stars or moon or something? A. We can't have every minute, we take bearings during the day. 979

Q. You got a bearing at 4 o'clock the day before? A. Just the distance off the point of land.

Q. Evidently you were mistaken in regard to testing the compass by some bearing and finding it correct? A. The compass had been running correct magnetic over a period.

Q. You mean—you testified I believe that you had examined the compass and found it correct the day before? A. Did I state that? 980

Q. I believe you did, you probably were in error about that, weren't you, because you would have nothing to test it by in a dense fog? A. The day before was clear from Sydney to Scutari, when we left Sydney for Scutari it was all clear.

Q. You have a notation in your log as to when you would take sight? A. We don't keep it in the log, we keep it in a special book, we have a record of all observations made right along.

Q. Can you tell by that when you last tested your compass? A. Yes.

Q. Will you look on that and see when it was last tested? A. Yes. 981

Adjourned to 2.15.

After adjournment.

By Mr. Single:

Q. It was foggy right up to the time you struck? A. Yes.

982 Q. The fog had started the morning before at 9 o'clock? A. The night before.

Q. That is, you left Sydney at— A. In the evening.

Q. At 6 o'clock was it or about 8 o'clock? A. Left Sydney at 1.50 P. M.

Q. And struck the fog when? A. 8 o'clock P. M.

Q. And you went on the bridge then, did you? A. I was on the bridge all the time, from Sydney we were coasting, you see coming along.

Q. What time did you go to bed that night? A. I didn't go.

983 Q. Were you on the bridge until you struck? A. I went down a minute before, I got my tea at half past six, the steward came and told me the tea was ready and I went down, felt the bump and went right out again.

Q. Did you wire your owners that you were making for Halifax? A. I informed my owners, yes, that I was heading for Sydney, Cape Breton.

Q. I mean after the stranding? A. I was in touch with Lloyd's agents, my agent at Halifax.

Q. Who are your agents? A. Pickford & Black.

984 Q. They are also Lloyd's agents? A. Yes, I knew that at the time so I knew it was no use sending two messages.

Q. You sent your messages to Pickford & Black depending on them to send word to the owners? A. To send word to the owners.

Q. You arrived in Halifax early in the morning, did you not? A. Early in the morning.

Q. Was there anybody representing Lloyd's there? A. Directly on arrival, no.

Q. Until the next morning? A. Until the following morning.

Q. About what time was that? A. A boat came 985
off for me the following morning about 7 o'clock.

Q. Were some of the representatives of the owners on that boat? A. No, they sent for me to go and see Pickford & Black.

Q. Who was on that boat? A. Pickford & Black's—what do you call it—agent.

Q. And he simply asked you to go off and see Pickford & Black right away? A. Yes.

Q. Did you go in your boat? A. Straight away.

Q. The vessel was at anchor? A. At anchor in the roads.

Q. May I ask you to detail what happened 986
right at that time? A. Pickford & Black heard the details of the accident from me; they were in touch with the receiver of the Port Warden, salvage people, and the underwriters, there was a matter of four representatives of these different concerns came off with me to the steamer, following us in the Maggie Marshall, came off to hold the survey.

Q. Is that a boat? A. Wrecking boat.

Q. Who were these four representatives that you speak of, do you know? A. Lloyd's Port Warden who represents half a dozen underwrit- 987
ing associations, of course the London Salvage people, and Mr. Wilson, who is for the underwriters, across here, the engineer, what would you call him, the agent, if there is a steamer to pass through the requirements of Lloyd's he signs, he is not for Lloyd's—yes, he is Lloyd's surveyor.

Q. Were these people interested in the vessel or interested in the cargo? A. Both.

Q. How did you know, what makes you think

988 they were interested in the cargo? A. Some I talked to about the vessel, others only interested in the cargo.

Q. What cargo did you discuss with them? A. The whole of the cargo that required removing or that was damaged.

Q. What do you mean by that? A. Lloyd's people came off and talked over what they were going to do with the ship to get her down to New York; at first it was proposed battening down lower No. 1 hold, building things around it, pumping compressed air in and forcing the water out, bringing the ship around by com-

989 pressed air, that is the weight of her keeping out the water; then the question rose how the cargo in No. 1 was, decided it could not be touched; they took one hatch off and they decided they would not do anything. Then there was a consultation and the question was raised of shifting cargo to bring the ship down aft and up forforward, relieving the weight on No. 1 bulkhead, went into this for an hour and decided it was the better plan; after that went alongside.

Q. This was all the first day? A. The first day.

990 Q. Do you know whether there was anybody there that represented any special cargo? A. No, only cargo, that is all, on behalf of the cargo.

Q. Did any of them sign on behalf of the cargo or make any recommendations? A. No.

Q. Then why do you say they were acting on behalf of cargo? A. They came down representing the underwriters for the cargo, they told me themselves they were in the interest of the cargo owners.

Q. You don't for a moment suppose that all the

cargo in the boat was owned by the same people, 991
do you? A. No.

Q. Then is not that a rather broad statement to say they were representing cargo, can't you be more explicit and say they represented some certain cargo? A. No, sir, on behalf of the cargo owners.

Q. Was there anybody there who specially represented the lemons? A. Not that I know of, cargo, that is all I heard.

Q. Was there any recommendations made with regard to discharging the vessel there and sending the cargo on down in another steamer, or 992
by rail? A. It was talked of.

Q. You don't know whether they reached any decision and then changed their mind? A. No, absolutely unfeasible.

Q. As a matter of fact were you present at all of these discussions? A. Yes.

Q. You were present? A. Yes.

Q. Were you representing the ship on these discussions? A. Yes, myself and Captain Gilboy.

Q. Who was he? A. Port captain.

Q. At Halifax? A. For Williams Steamship Company, he came from New York to Halifax.

Q. When did he arrive there? A. Two days 993
after we arrived there.

Q. He arrived there two days after you arrived? A. Yes.

Q. Then he was not present at these first discussions? A. Not the very first day.

Q. You were a representative of the ship? A. A representative of the ship.

Q. Was there any conclusion reached at those first discussions, any steps taken at that time with regard to the ship? A. No, merely coal

994 placed aboard sufficient to keep steam to keep the pumps going.

Q. Were you waiting until Captain Gilboy got there? A. No, waiting until Lloyd's agent, surveyor, and the underwriters' people came to some agreement as to what they were going to do; they found the ship was in no immediate danger.

Q. And you were merely waiting to see what they would recommend? A. To see what they would make up their minds to do.

Q. Were there dry docking facilities available there? A. No, I would not like to swear to this but I think it was three weeks we would have
995 to wait for a dock if we could get it then.

Q. Were there discharging facilities there so you could have discharged the vessel? A. Oh, yes.

Q. Would you have been able, do you think, to have obtained other space and sent the cargo down here, the perishable cargo that you mentioned?

Mr. Sprague: Objected to unless he knows.

996 A. At a price.

Q. You don't recall whether or not that was discussed upon the first few days? A. The question was raised.

Q. Do you remember what position you took in that matter? A. I had no option, I had no option in the matter whatever.

Q. I mean you were present at the discussion, you could lend your advice one way or the other, couldn't you? A. Lloyd's would not agree to it, it was talked over by Lloyd's and the cargo un-

derwriters, the expense was too great and the anticipated damage to the cargo would be too great. 997

Q. By reason of the forced discharge? A. And the transshipment.

Q. Who would you say vetoed that plan?

Mr. Sprague: If he knows.

A. I don't know, I know the man in my mind's eye, he is the man that represented several underwriters.

Q. You can't remember who he was? A. No, I believe I have his card on board, I am not sure. 998

Q. Did you at the end of the first day wire down to New York and give them a report of the situation? A. Through Lloyd's, yes.

Q. You mean through Pickford & Black? A. Through Pickford & Black, yes.

Q. How are we going to distinguish when Pickford & Black were agents and when they were Lloyd's? A. I don't know.

Q. Who did you understand they represented, you had your discussions with them as vessels' agents, did you not?

999

Mr. Sprague: I object to who he understood they represented.

A. Yes, the question in calling into a port, if you are in distress they made themselves your agents.

Q. In this case, they were your agents otherwise? A. To get coal, that is all.

Q. Halifax is the home port of the vessel, is it not? A. Yes.

Q. Did any of the directors or officers of the corporation visit the ship while you were there?

1000 A. No, their representative came there, Captain Gilboy.

Q. But none of the directors that were living in Halifax, that you know of? A. No.

Q. Did you wire for Captain Gilboy? A. No.

Q. Simply he came in response to a call that the vessel was in there in distress? A. Yes.

Q. Did he take charge? A. Yes.

Q. You simply followed out his orders? A. We consulted together.

Q. You were subject to his orders? A. Certainly.

Q. Up to the time that he arrived there was
1001 nothing had been decided upon? A. Nothing definite, no.

Q. After he arrived he discussed the matter with the surveyors and at that time they decided to send the vessel down here? A. They decided to move the cargo, put ballast on the after deck, have the bulkhead shored up, pump placed in No. 2 and the ship allowed to proceed with a tug.

Q. This was all after Captain Gilboy arrived? A. After Captain Gilboy arrived.

Q. Up to that time they had not arrived at any
1002 definite decision? A. No definite decision.

Q. He arrived on the second or third day? A. Second day as far as I can remember.

Q. You have no record in your log book? A. No, I have not, we would not put that sort of thing in the log.

Q. When did you move to the dock to discharge? A. On July 28.

Q. And you arrived on July 26? A. Arrived at 2.12 A. M. on the 27th.

Q. Then he must have arrived the next day? A. On the 28th I think—that is right, yes.

Q. Up to that time you had been lying in the roadstead, you hadn't come in, attempted to move any cargo, do any discharging at all? A. No, that is right. 1003

Q. Did you consider that it might be possible you would have to discharge your entire cargo, that is why you had taken no steps? A. No, there would never be any necessity for that, the only cargo that would have to be discharged for the benefit of the ship was the cargo in No. 1.

Q. You say benefit of the ship, what do you mean by that? A. So as to enable the ship to make any repairs if they were going to attempt any there. 1004

Q. What was the situation in regard to the cargo in No. 1, was there a recommendation that it be discharged at all? A. No, never mentioned.

Q. Were the surveyors told what cargo was in No. 1 and what was under water? A. Yes, they had a cargo plan, there were six cargo plans distributed among the people interested in the cargo and the ship.

Q. Were you aware at that time who the consignees of the cargo were? A. By the bills of lading, that is all.

Q. Did you make any attempt to notify the consignees of the damage? A. No. 1005

Q. Did Captain Gilboy, after he arrived, notify the consignees? A. I don't know.

Q. Did you have anybody represent to you that they represented the citrate of lime? A. No.

Q. Didn't you consider that that citrate of lime would be damaged by being left for a length of time in that hold under water? A. Yes.

Q. Why didn't you take some steps then to prevent that deterioration? A. There were no steps to be taken.

1006 Q. You could have removed the cargo by pumping out the water? A. We could not.

Q. Could not you place her nose in mud and pump out the water? A. It was not practicable.

Q. Were not there certain facilities to close the hole with collision mats? A. It was mentioned but was impracticable.

Q. Why was it impracticable? A. The hole was too big, a collision mat was suggested.

Q. Who decided that was impracticable? A. The whole bunch, the whole bunch altogether.

Q. That was upon what day, was that before or after Captain Gilboy got there? A. After Cap-
1007 tain Gilboy got there.

Q. Do you remember did he specially urge the surveyors that nothing be done at Halifax? A. No.

Q. And the vessel came forward? A. No, he didn't urge anything at all, only suggested.

Q. Of course, it is a rather fine line between urging and suggesting, isn't it?

Mr. Sprague: I object to any question as to whether there is a fine line between words, the captain is not being examined as a specialist in English.

1008 A. The suggestions were for the benefit of the ship and cargo, the ship could not possibly dry dock or get repairs in Halifax, the idea was to get her around to New York so that cargo could be landed and repairs effected.

Q. Were there vessels in the dry dock, was that the reason she could not dry dock? A. There was a big strike in Halifax, some ships had been held up there six weeks, some four, ship building was apparently stopped.

Q. Was the dry dock itself at the time empty? 1009
A. No, they had ships in.

Q. And they were simply held up by the strike? A. Held up by the strike.

Q. Was that the reason why they thought it was best not to attempt to do anything in Halifax? A. They could not see any possible chance of getting the ship into dry dock for quite a long period.

Q. How could they estimate when the strike would be over?

Mr. Sprague: Objected to as to an estimation by other persons than the captain, how they could estimate. 1010

A. People who knew the general situation, hoped the strike would be finished soon.

Q. I believe you said before, captain, that the dry dock was not available for three weeks? A. That is what they hoped.

Q. They simply hoped it would be through in that time? A. Yes.

Q. It might be through the next day or might not? A. Yes, as a matter of fact it might not be through in a year.

Q. When Captain Gilboy arrived did he come right on the vessel and talk to you about the case? A. I met Captain Gilboy on shore. 1011

Q. And you told him the general situation? A. Yes, told him the general situation.

Q. Did he ask what cargo was damaged and the extent of the cargo damage? A. Yes.

Q. As well as the extent of the ship damage? A. Yes.

Q. Did he ask you at any time who were the

1012 interested consignees of cargo that was damaged? A. No.

Q. He didn't ask you? A. No.

Q. And you didn't tell him? A. No.

Q. You thought it was unimportant? A. The papers were there, he went through the papers, whether he took notice of the particular consignee of the citrate of lime I don't know.

Q. After he arrived you simply let him take full charge of the case? A. Full charge of the situation.

Q. You say the vessel came alongside the wharf, and you discharged part of the cargo, you dis-

1013 charged part out of No. 1 and part out of No. 2? A. Yes.

Q. That was for the purpose of shoring up No. 2 bulkhead? A. Yes.

Q. So you could put in your pump and make the temporary repairs required? A. Yes.

Q. And you took on ballast on deck? A. 400 tons of ballast.

Q. What was that in, sacks? A. Loose.

Q. Rock ballast of some sort? A. Stone.

Q. What effect did that ballast and the transfer of cargo have? A. Brought her up forward, put

1014 the ship down aft.

Q. How deep was she at that time by the head? A. After they put the ballast in?

Q. Yes? A. 12 feet 10 forward, 22 feet 6 aft.

Q. How does that compare with the depth at the time shortly after she struck, I believe you said her depth was 21 aft? A. No, depth of water in the hold.

Q. What was her depth after she struck? A. 19.6 forward.

Q. In other words she was trimmed about 7 feet? A. Yes.

Q. After she was trimmed that way what was the depth of water in the hold? A. 15 feet. 1015

Q. Do you know how high the cargo in the hold was stowed, that citrate of lime? A. Four heights.

Q. That would be about 24 feet? A. Say 20 feet.

Q. Those barrels are about 5 feet high? A. No, 4 feet, they are stowed on the bilge, they are about 4 feet across the head of the cask.

Q. So the cargo was probably—the top tier was out after you trimmed the ship? A. No, impossible, 20 feet and the water—after we trimmed the ship, yes. 1016

Q. I believe you testified that on the way down before you got into New York you dumped the ballast overboard to save expenses? A. Yes.

Q. What do you mean by saving expenses? A. Save the expense and delay getting into New York, it is very expensive getting that ballast off the ship.

Q. Why would there be any delay in getting the vessel into New York? A. They could not discharge the after hold, either 3 or 4, until the ballast was away, that was over the hatches and everything. 1017

Q. The expense would be what, in lightering the ballast? A. Lightering the ballast.

Q. Under whose instructions did you throw it off at sea? A. The underwriters and Lloyd's.

Q. That was verbal? A. Verbal, yes.

Q. They recommended this ballast be taken on and then thrown off just before you got to New York? A. Just before we got to New York, when I thought the ship safe.

Q. What was the result of throwing that bal-

1018 last off? A. The ship submerged forward to 14.6, rose aft to 18.6.

Q. What would be the depth of water in the hold then? A. 17 feet.

Q. In other words, it would have partly submerged the top tier of cargo? A. Yes.

Q. You say this ballast was over 3 or 4 hatch? A. No. 3 and 4.

Q. You would not have been able to discharge from either of those holds had ballast not been taken in? A. No.

Q. How much time would it have taken to re-
1019 move that ballast and put it on to a lighter? A. In New York?

Q. Yes? A. About 2 days.

Q. You were 2 days in getting it off at sea A. More than 2 days—no, at sea merely threw it over the side from everywhere. How long were we—about a day and a half.

Q. How many sailors would that be? A. All sailors, all firemen, all hands, they were paid extra money for doing that.

Q. Were there surveyors in attendance as soon as you arrived here? A. In New York?

Q. Yes, Lloyd's people notified? A. Yes.

1020 Q. You don't remember when they first came on, the first visit? A. No, I don't.

Q. Did Captain Gilboy come down with you? A. No.

Q. He came down by train? A. Came down by train, Captain Gilboy boarded the steamer the morning after my arrival.

Q. You arrived on August 7, is that right? A. Yes.

Q. And you went to the dock August 9 to discharge the lemons, is that right? A. Yes.

Q. That was under Captain Gilboy's orders, 1021
was it not? A. Yes.

Q. And you took from August 9 to August 19 to discharge the lemons? A. Yes.

Q. Then you went to 134th Street to discharge the cork? A. Yes.

Q. The lemons took up the entire dock, is that right? A. Yes.

Q. Was it possible to have discharged the cork on lighters and have the work go on simultaneously? A. No.

Q. Was the ship between two piers so lighters were not possible? A. Yes, narrow piers.

Q. You discharged all on one pier or two piers? 1022
A. On one pier.

Q. The citrate of lime was under water all this time? A. Under water all this time, yes.

Q. In New York the hold was how full, do your records show the depth of water in the hold? A. No, sir; I have no record of that, only that it was under water.

Q. After you had discharged the lemons from the No. 3 and No. 4 hold and other places, did the ship go farther down by the head? A. Yes.

Q. What was she by the head when she went to Tietjen & Lang's? A. I could not say without 1023
consulting my record which I have on board.

Q. Your log book does not deal with the port? A. No, I could not say definitely.

Q. Your log just brings you into New York. does not deal with the time you were in the dry dock? A. We have a record of it.

Q. It is not in there? A. No.

Mr. Single: I ask for the production of the notes kept in port.

1024 *By Mr. Sprague:*

Q. Do you keep those notes here? A. Yes, the chief officer does.

By Mr. Single:

Q. The vessel went in dry dock upon what date do you remember? A. I could not give you that offhand either, I had better make a note of what you want in regard to the dry docking. You want the draft entering Tietjen & Lang's?

1025 Q. Yes, fore and aft? A. She had to enter the dry dock three times, the first time to measure her plates, to survey the damage, the second time to part cut away the damage and measure for new plating, the third time when she went for repairs.

Q. I believe you stated that Tietjen & Lang said they would not consent to your removing the cargo while she was in dry dock? A. I said it was impracticable.

Q. There was no question of consent then, it was simply considered impracticable? A. Yes.

1026 Q. Did you reach that conclusion, or who reached it? A. It was talked over, it was talked over in the office, they concluded it was impracticable to land the cargo.

Q. Who do you mean by they? A. From the firm and Tietjen & Lang.

Q. You mean representatives of Williams Steamship Company and Tietjen & Lang? A. Yes.

Q. And you were not present at those discussions? A. No.

Q. You don't know of any actual refusal on the

part of Tietjen & Lang to permit the cargo to be discharged if it had been desired? A. No. 1027

Q. When the vessel went on dry dock the water went out of No. 1, did it not? A. Ran out, yes.

Q. Then when she was put in the water it ran in again, filled? A. Yes.

Q. That happened twice? A. Yes.

Q. How long would you say she was in dock for the first, merely surveying of the damage and taking of the fittings of the plates? A. A day and a half—I would not state that definitely until I got the notes.

Q. How long was she out before the second docking? A. Quite a while. 1028

Q. A number of days? A. A few days.

Q. When she went in dock how long was she in that time? A. I could not say that offhand.

Q. A matter of a day or two? A. No, 10 or 12 days.

Q. The second time they were fitting the plates? A. The second time measured the plates, taking the templets.

Q. That was 10 or 12 days? A. No, only just a day and a half.

Q. That was the second time? A. The second time. 1029

Q. The first time was about the same? A. About.

Q. Then she came out the end of the second time, how long did you wait before you could go in to make the final repairs? A. A few days.

Q. The question of delivery of cargo in this port was all dealt with by the owners, you don't know when a tender was made of any of the cargo or anything like that? A. No.

Q. I believe you stated it would cost too much

1030 to take the cargo out while in dry dock, is that right? A. Did I mention cost?

Q. I believe you did, you said there were no means to lift the cargo from the dry dock to the wharf? A. No means to lift the cargo from the dry dock to the wharf.

Q. But you don't know whether it was a question of cost or what led to the conclusion that the cargo would not be discharged? A. No.

Q. You don't know a thing about that? A. No.

Q. Then the question of cost—— A. The question of cost was never raised before me.

1031 Q. You mean at that time, you see you made a statement in answer to a question by Mr. Sprague that the cost of removing the cargo in the dry dock was too great, that therefore it was not done?

Mr. Sprague: I don't recall such a statement.

Q. Do you remember when the first representatives of cargo were down to see you in this port? A. The day I don't remember.

Q. You don't remember approximately? A. Soon after arrival.

1032 Q. Did you show them what cargo was damaged? A. Took them wherever they wished to go.

Q. You don't know whether that was while you were discharging lemons or cork or what? A. Lemons.

Q. At that time did you, or was it Mr. Gilboy that said that the cargo would have to wait until the vessel dry docked before it could be discharged? A. It would not be me.

Q. Was all your freight on the vessel collected? A. No.

Q. Part of it was prepaid? A. No, none of it 1033
was prepaid.

Q. It was all collect freight? A. All collect freight.

Q. Did you have the records to see what the freight was on the different shipments? A. Yes.

Q. I mean did you know? A. No.

Q. Those came through the agents? A. Through the head office.

Q. You don't concern yourself with the question of the amount of freight on the various shipments? A. No, not the amount of freight.

Q. Was there any question raised here in New 1034
York by the stevedores that they should get an extra rate of freight due to the fact that the cargo was damaged? A. I heard a rumor.

Mr. Sprague: I object to any further testimony as to a rumor.

Q. Do you know whether any extra money was paid to the stevedores? A. The question was never raised with me.

Q. You don't remember any conversations in your presence touching on that point? A. No, I have no dealings with the stevedores save to see 1035
that they handle the cargo in a proper manner.

Q. Would you have remembered it if it had been discussed in your presence? A. Yes.

Q. You think you would? A. I would have, yes.

Q. Were you in constant touch with the owners on the way down by wireless? A. Yes.

Q. You will produce any of those telegrams, as well as the telegrams prior to the arrival at Halifax? A. Yes.

1036 Q. When did they get a new chief engineer here? A. Here in New York.

Q. Did you sign on your Portuguese engineers for just the voyage over or for a round voyage? A. Round voyage.

Q. In connection with the signing on of those engineers, did you go into the question, or did you leave it to the chief engineer as to their capabilities, or did you leave it to the consul? A. To the consul to see that they had sufficient certificates to sail as third and second engineer.

Q. Did you consider that a man who has
1037 ordinary papers as assistant engineer is capable of working as engineer upon a turbine ship?

Mr. Sprague: Objected to, the captain is not an engineer, not an expert on turbines.

A. It is an engineer's question.

Q. You are the captain of the ship; if you saw fit you would object to anybody coming on your ship that you considered not proper, would you not? A. Certainly.

Q. Did you consider that question as to
1038 whether these men were capable of working in a turbine ship? A. They were capable as any engineer of the highest grade that has sailed with reciprocating engines, no matter how many years.

Q. Why do you say that? A. Turbines are new, there are not enough turbine engineers in the world to supply engineers for turbine ships.

Q. I believe you testified that you made an attempt to get some English engineers that were conversant with turbines? A. No.

Q. They were just ordinary engineers? A. Ordinary engineers.

Q. I believe you testified you offered them extra money? A. To take the job, yes. 1039

Q. What would that mean, more money than they were getting ashore? A. More money than the standard pay.

Q. Don't you have to do that nowadays? A. No.

Q. Just ordinary standard pay? A. Standard pay.

Q. Do you in your log put down your bearings every day, your position by noon? A. Yes.

Q. And any sights that you have taken? A. Yes.

Q. Does this show in your official log? A. No. 1040

Q. They don't show in your official log? A. Sights, no.

Q. Your position at noon, does that show? A. Yes.

Q. And any bearings you were able to take? A. Land bearings, all bearings, compass bearings, no; there is a special book kept for that, known as the deviation book.

Q. Was there any question raised with regard to being dangerous for the ship to come down because of the fact that she didn't have sternway—I understand that she could not back herself, is that right? A. That is correct. 1041

Q. No question was raised about that? A. No.

Q. Didn't the surveyors consider it a dangerous thing, or mention it? A. No,—coming from Halifax?

Q. Yes? A. No.

Q. What would have been the situation if you met an emergency? A. She was in tow and the tug was responsible for the tow.

Q. All the way down? A. Yes.

1042 Q. At Ponta Delgada, were there any restrictions as to coal? A. No.

Q. Do you remember approximately the difference in prices? A. £8.15:—at Ponta Delgada.

Q. What would it be at Sydney? A. $13, I think.

By Mr. Sprague:

Q. Canadian or American? A. Canadian.

By Mr. Single:

1043 Q. Do you remember the wireless message that you got before or shortly after you set sail for Sydney; is there a wireless message asking you to go to Halifax? A. I got it close to Sydney.

Q. Got the message asking you to go to Halifax? A. Yes, sir.

Q. But you didn't follow that? A. I didn't deem it safe.

Q. On account of the supply of coal you had? A. I stood on to Sydney.

Q. Was the coal at Ponta Delgada as good as you could get anywhere? A. No.

1044 Q. It was not very good steaming coal? A. No.

Q. Was the chief engineer a man who has sailed back and forth, do you know? A. All over the world.

Q. Did you stop at Ponta Delgada on the way over? A. No.

Q. How did this coal that you got there turn out? A. None too good.

Q. It was not very good? A. No.

Q. You had plenty of bunker space, you could

have taken more coal at Ponta Delgada if you so desired? A. Yes. 1045

Q. Did you have plenty of money, or could you draw? A. Money was no question.

Q. Where did you report from Ponta Delgada; did you report to the owners here? A. Yes, through Esplin.

Q. By cable? A. By cable.

Q. You reported your engines were broken down? A. In there for repairs.

Q. Did you ask for any orders? A. No; reported she arrived.

Q. Did you get an answer to that? A. No.

Q. You left before you could have? A. No, it was not necessary. 1046

Q. There was no answer necessary? A. No.

Q. Was there anything other than sickness, any other way but sickness you can account for the engineers leaving? A. No.

Q. They were all really sick? A. Doctor's orders; the man with the bone was to be seen when pointed out by the doctor, damaged bone; the third engineer had pyorrhea, plain to be seen; the second engineer had been acting queer from Marseilles.

Q. You mean by that he was a little crazy? A. His wife had died and things were not quite right at home and it seemed to go to his head. 1047

Q. You lost the three engineers and you only replaced them with two, is that right? A. Yes.

Q. That is all you could get? A. Yes.

Q. Did your requirements call for three or two? A. Two. I had a fourth engineer at Messina to replace the fifth, who had been discharged at Marseilles for persistent drunkenness.

Q. Where was he sent from? A. From Liverpool to Messina.

1048 Q. Upon your request to Esplin? A. From Marseilles.

Q. You wired? A. Wired from Marseilles I was discharging one and to send me another one.

Q. If you took that much trouble to get one engineer, I should think you would have taken a lot more trouble to get three, how does that happen? A. It was too late, the three were taken out of the ship the day before sailing.

Q. Did you have to sail? A. I had to get the ship along.

Q. You mean you wanted to? A. Perishable
1049 cargo on board, I could not afford to wait an indefinite period like 10 days, or maybe more.

Q. And you didn't communicate with Esplin at all about the three? A. No; I considered it hopeless to communicate with Esplin; whatever had to be done had to be done on the spot.

Q. You had agents of the owners there at Lisbon? A. Yes.

Q. You simply conferred with them about the matter? A. Conferred with them and they agreed with me.

Q. They agreed with you? A. Yes.

Q. Did they recommend that you go on? A.
1050 Their recommendations were carried out.

Q. Those people were in exactly the same situation as owners, so far as you were concerned, were they not?

Mr. Sprague: Objected to; he says they were owners' agents, the position they were in is a question for the Court.

A. No, they were my agents to assist me in local ship's business.

Q. Would they have had a right to hire new

engineers for you just the same as Esplin? A. 1051
Neither they nor Esplin have the right to order new engineers, unless I want them.

Q. In other words, you get your orders— A. I am the owners' agent, other agents only assist.

Q. Then the reason why you didn't wait to get any other engineers or anything like that at Lisbon was because you wanted to get on because of the perishable nature of the cargo? A. Yes.

Q. Is that also true at Ponta Delgada, why you didn't make final repairs? A. Could not make final repairs.

Q. Why you didn't return to some other port 1052
for final repairs? A. No nearer repair place, no repairs could have been executed even at Lisbon, there is no shop that can deal with turbines.

Q. You would have to go to Fayal?

> Mr. Sprague: Objected to; he stated he could not do it at Fayal once before, putting words in his mouth.

A. By the pilot book the engine repair works at Fayal were too small to deal with the matter of turbines.

Q. What books are those you refer to? A. The
Atlantic Pilot, it tells you small repairs can be 1053
effected, Ponta Delgada is recommended; in fact, an American ship at Fayal with engine trouble had to be assisted to Ponta Delgada to effect repairs.

Q. You don't know what that situation was? A. No.

Q. That is something you heard? A. Told me by an American captain; the guide book will tell you, I think, that Fayal is only for blacksmith work.

1054 *Re-direct examination by Mr. Sprague:*

Q. Who were your agents in Lisbon? A. Mascharanas.

Q. When you said they were agents for the owners of the ship, just what did you mean? A. They are the agents supplying me with the cargo and to assist me locally in anything that I require.

Q. You were advised to that effect by your home office of the owners, were you? A. From my owners, through other agents.

1055 Q. What did those other agents tell you? A. Proceed to Lisbon and report to Macharanas for cargo.

Q. Mascharanas was simply the ordinary ship's agent, wasn't it? A. Yes, ordinary ship's agent.

Q. No general agent of the owners, as far as you know? A. No.

Q. The owners have not any office over there in Lisbon, as far as you know? A. No.

Q. Or in Europe? A. No.

Q. You consider these two Portugese engineers to be competent engineers? A. Yes.

Q. Before hiring them you had their certificates
1056 interpreted to you in the consul's office? A. By the consul.

Q. And they had the proper papers? A. The proper papers, and had sailed respectively as chief engineer and second engineer in Portugese steamers.

Q. What kind of coal did you get at Ponta Delgada? A. A mixture of Welsh and American.

Q. I take it that it was not as good as you got from Gibraltar, from what you said? A. No.

Q. You mean by that there was more American

coal than there was Welsh in the mixture? A. 1057
Owing to present troubles there are so many grades of Welsh coal on the market, it is hard to say which is best, American or Welsh.

Q. Was it as good coal as you could get at Ponta Delgada? A. The best we could get.

Q. If there had been better coal, would you have gotten it? A. Yes.

Q. Were you restricted in any way to the quality of coal you got there, or the quantity? A. No.

Q. When you got this wireless from the owners just before reaching Sydney, how near Sydney had you got? A. The exact mileage I could not 1058
say now, I would have to look it up.

Q. Had you arrived at the port yet? A. No, I was pretty close to Sydney.

Q. Just what do you mean by pretty close? A. One day off.

Q. When did you learn that the second and third and fifth engineers were sick and could not proceed? A. Two days before leaving.

Q. Prior to sailing? A. Prior to sailing.

Q. Did you have any notice beforehand that they were sick? A. No.

Q. You said in answer to a question on cross- 1059
examination that it was hard to find turbine engineers? A. Yes.

Q. It is hard to find English turbine engineers, too? A. Yes.

Q. That is not restricted to engineers of Portugese nationality, is it? A. All over the world.

Q. It is a general condition? A. A general condition.

Q. The chief engineer was an old turbine man, wasn't he? A. Yes, and knew his business thoroughly.

1060 Q. When this cargo of citrate of lime was offered to you, taken on board your ship at Messina, was anything said to you as to any peculiar value of this shipment? A. No, not mentioned.

Q. Anything as to its quality mentioned to you? A. No.

Q. Were you told what it was? A. Yes.

Q. Did they tell you what kind of substance it was? A. No.

Q. Did you yourself know the particular qualities of citrate of lime? A. No.

Q. Were any representations whatsoever made
1061 to you regarding its characteristics, or its value? A. No.

Q. Did you have any idea as to how valuable it was? A. None whatever.

Q. This citrate of lime was covered with water within a minute after the ship struck, wasn't it? A. More than a minute.

Q. How long after the ship struck was it covered with water? A. Five or ten minutes.

Q. When did you get the soundings in that hold? A. Straight away.

Q. And it was then 18 feet on one side and 21 on the other? A. Yes.

1062 Q. And that entirely covered this citrate of lime? A. Yes.

Q. And it remained covered, did it, until you arrived in Halifax? A. Yes.

Q. And that was a period of some four days? A. Yes.

Q. What kind of casks was the citrate of lime packed in, if you know? A. Ordinary casks for dry goods, something like a lime cask, like a flour barrel on a large scale.

Q. What did you yourself consider as to

whether or not any damage had occurred to that 1063
before you reached Halifax? A. We hoped that the wood had swollen and kept the water out.

Q. Did you know whether it was liquid or solid? A. I knew it was solid.

Q. If the wood had swollen and kept the water out until you reached Halifax, would water have gotten in afterwards? A. No.

Q. Once it had swollen it would have kept swollen, would it not? A. It would have kept swollen.

Q. Was there any underwriter that asked you particularly about this cargo in No. 1 hold? A. 1064
At Halifax?

Q. At Halifax? A. No.

Q. You have stated that one or more of these representatives who met you at Halifax were representatives of the underwriters on the cargo? A. On the cargo.

Q. How do you know that? A. By their card.

Q. You have the cards, have you? A. This one I speak of, they were interested in the cargo as a whole.

Q. Did they question you about the cargo as a whole? A. Yes.

Q. What did they ask you about? A. Stowage, 1065
what was stowed in No. 1, what I anticipated would be the state of the cargo in No. 1.

Q. Did any of them examine the cargo in No. 1? A. No.

Q. Did anyone at Halifax suggest this cargo be unloaded at Halifax? A. No.

Q. When the suggestion was made that the hatches be battened down, No. 1, and compressed air be pumped in, was that for the purpose of keeping water entirely out of No. 1? A. Yes.

1066 Q. Would that keep water entirely out of No. 1? A. Yes.

Q. Was not that an alternative method to put the ballast on the stern? A. Yes.

Q. Would it have accomplished any more than putting ballast on the stern? A. No.

Q. Then it could not have taken all the water out of the hold? A. It would have taken all the water out of the hold.

Q. Do you think it would have kept all of it out on the voyage down? A. Yes.

Q. That plan was passed on by Lloyds' you say, and rejected? A. And rejected.

1067 Q. When you arrived in New York you stated that representatives of cargo called while you were discharging the lemons? A. Yes.

Q. Did they tell you that that cargo was deteriorating while under the water? A. No.

Q. Did they demand that you take it off at once? A. No.

Q. What did they say?

Mr. Loughran: Objected to.

A. They made no suggestions with regard to unloading any part of the cargo.

1068 Q. Could you have unloaded that cargo with the ship in the water? A. With divers.

Q. Could it have been unloaded without divers? A. No.

Q. Were you requested to use divers? A. No.

Q. When she got in the drydock you said it was impracticable to unload that cargo in the drydock; will you state again just why it was impracticable? A. There were no means on the drydock, so far as I could see, for lifting that cargo from the drydock to the wharf.

Q. There was not any place you could put it after you took it out of the ship, no pier you could have lifted it on after you got it from the hold of the ship? A. From the hold of the ship and put it in the drydock. 1069

Q. You mean right down in the drydock itself? A. In the bottom of the drydock, yes.

Q. That dock had to be used, didn't it? A. They were using it.

Q. What would they do when you got through? A. Sink it for another ship.

Q. The cargo would have been on the bottom? A. They would have sunk it.

Q. To unload in the drydock would have prevented the use of the drydock by Tietjen & Lang? A. Yes. 1070

Q. There was no method of lifting it out of the drydock, as far as you could see? A. Not that I could see.

Q. Was the cargo of citrate of lime discharged from the ship as soon as it could possibly have been discharged, practicably discharged, in your opinion? A. Yes.

Q. When you put the ballast on the stern of your vessel at Halifax, are you sure that the upper tier of barrels of citrate of lime was above water? A. No, couldn't see. 1071

Q. Did you look down to see? A. The cork was on top of the citrate of lime.

Q. Could you see the cork? A. We could see the cork.

Q. You yourself don't know how high the citrate of lime came? A. Not exact, 4 heights of casks.

Q. And you are estimating on the height of the casks? A. And the dunnage wood would raise it.

1072 Q. Will you indicate here on the wall how high you think each cask was in the bilge? A. Say about so (indicating).

Q. Did you see these casks when they were slung over the side of the ship and put in the hold? A. Yes.

Q. Is that 4 or 5 feet high? A. 4 feet, it is very hard to say unless you actually measure.

Q. Do you know how long the strike at Halifax drydock lasted? A. I don't.

Q. How many ships were waiting for repairs there, do you know? A. I don't know the number; quite a large amount, the port of Halifax
1073 was practically held up owing to the strike.

Q. Were Pickford & Black the ordinary ship's agents there? A. Yes.

Q. They were also representatives of Lloyds'? A. Yes.

Q. Once you came into the port in distress you were in their hands, agents of Lloyds', were you? A. Yes.

Mr. Single: Objected to; the captain has testified they were the ship's agents and he didn't know when they were acting
1074 for the ship, or when they were acting as Lloyds' agents.

Q. As a matter of fact, when you go into a port in distress and Lloyds' agent is there, they take charge of the ship? A. They are always the best people to give the ship's agencies to.

Q. As a matter of fact, they take charge as Lloyds' agent when you go into a port damaged? A. Yes.

Q. You stated that no decision was reached by

the surveyors until Captain Gilboy arrived? A. 1075
Yes.

Q. Your log shows, I believe, that you arrived in Halifax at 2:12 A. M. on July 27th? A. Yes.

Q. Also that the wrecking boat *Maggie Marshall,* with the surveyors came alongside that day? A. Yes.

Q. And that on July 28 you shifted to Furness's wharf? A. Yes.

Q. What were the surveyors doing on the 27th?

Mr. Single: Objected to, the captain does not know what the surveyors were doing. 1076

Q. What did they appear to be doing? A. Holding consultations.

Q. On the ship? A. In Pickford & Black's office with regard to the ship and cargo.

Q. Did they have a diver attend that? A. The first day they had the diver down.

Q. That was the 27th? A. That was the 27th.

Q. They could not ascertain the damage, could they, until they had the diver's report? A. No.

Q. So there was no time lost there so far as you could see? A. None whatever.

Q. The next morning you were moved to the 1077
wharf? A. To the wharf.

Q. And started to carry out their recommendations? A. Yes.

Q. Where is your room situated on the ship in reference to the bridge? A. Under the bridge.

Q. Directly under? A. Directly under.

Q. Reached by a stairway? A. Reached by a stairway.

Q. The stairway is just outside of your door? A. Just outside of my door.

1078 Q. You had just gone down that stairway when this stranding happened? A. I had just got to my room.

Q. Libellants' counsel has questioned you about your attempting to save the ship; you didn't expect you could save the cargo unless you did save the ship? A. My first duty is to save the ship.

Q. If you save the ship, you also save the cargo, don't you? A. Yes.

Q. What was the reason for using the extra large amount of coal from Ponta Delgada to Sydney? A. That is an engineering question, dealing with what a ship requires, difference in
1079 coal required by a ship on both turbines and only running on one.

Q. But are there any reasons from the deck department from the standpoint of weather, currents, or anything of that kind? A. No.

Q. You could not have used the high pressure turbine when you left Ponta Delgada? A. No, impossible.

Q. The thrust pads had burned out and allowed the shaft to go astern, had they? A. The roter was out of working order altogether.

Q. What effect did that have upon the blades?
1080 A. That is the rotor, the rotor is the blades, the cylinder that contains the blades.

Q. What about the blades themselves? A. Badly worn, many broken.

Q. Due to what? A. That is an engineering question, I can't answer that.

Q. As a matter of fact had this turbine worked at all? A. No.

Q. Until she had permanent repairs? A. No.

Q. Was there any place in that vicinity or that section of Europe where those repairs could have been made? A. No.

Q. As a matter of fact it is very difficult to find 1081
a place in New York? A. There are only two places in New York where they can possibly effect the repairs.

Q. If you had not come to New York to effect them where would you have had to go? A. I have heard that they can be done in Norfolk, they have a plant there recently.

Q. They could have been done in England? A. In England, yes.

Q. You had your choice of coming to the States or going to England? A. Yes.

Q. I understood you to say on cross examina- 1082
tion that the repairs at Ponta Delgada were all done on the ship, is that quite correct? A. No.

Q. What is the fact? A. The engine overhauled was done by ship's engineers, the shore machine shop repaired the pump, new metal in the thrust pads and a steam pipe.

Q. This Weir pump that you say broke down after leaving Ponta Delgada, that is the pump that feeds the water into the boiler? A. The big pump for the boilers.

Q. It has no connection whatever with the oil pump that broke down before, or with the turbine? A. No. 1083

Q. When you left Ponta Delgada did you have the port of Sydney in mind at all as a place that you might go to? A. Yes.

Q. Why? A. My owners had instructed me at Gibraltar to bunker at North Sydney if I found it necessary.

Re-cross examination by Mr. Single:

Q. Could these Portuguese engineers talk English? A. One could talk a good deal.

1084 Q. The other one could not talk at all? A. The other one could not speak English.

Q. I think you said it was four days from the time you stranded until you got to Halifax, that was a mistake, wasn't it? A. Yes, that is a mistake, yes, three days.

Q. Before you arrived at Halifax I think you said you wired to the ship's agents at Halifax expecting them to get in touch with your owners in New York, isn't that right? A. Yes.

Q. You wired to them as ship's agents, or as Lloyds' agents? A. As ship's agents.

1085 Q. As a matter of fact, although they were Lloyds' agents your dealings with them were as ship's agents? A. As ship's agents.

Q. You stated that it was your first duty to save the ship, is that your understanding of the captain's duty? A. Yes.

Q. Isn't it supposed to be that a captain is charged as the agent of all concerned in connection with an accident? A. Save the ship and cargo.

Q. You have just as much duty to save cargo as ship—as a matter of fact in certain cases you would save the cargo and let the ship go, if values

1086 were greater for the cargo; in other words, you use your best discretion what you shall do in case of accident? A. Yes, sir, but the ship is the ship master's first duty, save the ship.

Q. That is your understanding, is it? A. Yes.

Q. I believe you testified that the barrels used were barrels such as you would stow dry goods or flour in? A. Yes.

Q. Would you expect a barrel like that to hold out water like an oil barrel, even when wet? A. No, I would not, that is merely specifying a type

of barrel, it was not an oil barrel nor like a palm oil cask, which is made solely and simply for holding a liquid. 1087

Q. This was a barrel simply for stowing solid? A. Dry goods.

Q. It would not have served to prevent leakage from the inside, would it? A. No.

Q. With regard to the question of unloading or handling of cargo while the vessel was in dry dock, that was entirely out of your hands, wasn't it? A. Yes.

Q. And you didn't even consider it within your province to make recommendations to owners, or anything like that? A. No. 1088

Q. That was something for them to decide? A. Yes.

Re-redirect examination by Mr. Sprague:

Q. Do you know what watches they stood in the engineroom after the Portuguese were taken? A. Double.

Q. Was there always an English engineer on watch? A. Chief and third in one, and the second and fourth on the other, six hour watches.

Q. So there was always an English engineer on watch? A. Always. 1089

JOHN THIRKELL, being duly sworn and examined as a witness for claimant, testifies as follows:

By Mr. Sprague:

Q. You are first officer on the *Willdomino?* A. Yes.

1090 Q. How old are you? A. 39.

Q. How long have you been going to sea? A. 25 years.

Q. How long have you been first officer on any ship, on British ships? A. About 8 years.

Q. And as first officer on the *Willdomino* how long? A. Since February, 1920.

Q. You kept the logs for the deck department on the *Willdomino*, did you? A. Yes.

Q. I show you Claimant's Exhibit E-1, 2 and 3, and ask you to look at them and state whether those are the deck logs for the *Willdomino* covering the period from April 29, 1920, until her
1091 arrival in New York on the last voyage? A. Yes, they are all right; my writing and my logs.

Q. Those are all in your writing, are they? A. Yes.

Q. When did you write up these logs, different entries for each day? A. Probably the next day, probably a couple of days after, just when I saw fit.

Q. You wrote them yourself? A. All myself.

Q. Are they correct, accurate logs? A. Yes.

Q. Of events that transpired on the *Willdomino* during this period? A. Yes.

1092 Q. When did you have the captain sign them? A. He is supposed to sign them before the ship enters port; he can sign them when he wants to, each day, but it is the aim for him to sign every five or six days.

Q. He stated in his cross examination that he signed them about the end of each week? A. Yes, just about.

Q. That agrees with your recollection? A. Yes.

Q. As chief officer did you have charge for the

ship of the stowage of the ship with cargo? A. Yes. 1093

Q. She loaded at two ports? A. Messina.

Q. And then at Lisbon? A. Yes.

Q. You prepared a stowage plan, did you? A. I prepared it.

Q. Is that the stowage plan (handing witness paper)? A. That is it.

Q. That is the way the cargo was stowed? A. That is the way exactly.

Q. Is that your signature in the righthand corner? A. Yes.

Mr. Sprague: I offer the plan in evi- 1094
dence.

(It is marked Claimant's Exhibit K.)

Q. The present actions were brought for two consignments of citrate of lime, do you recall when those consignments were loaded on board the vessel and at what port? A. I could not exactly say, it is in the log book, I have to refresh my mind, my memory is not so good as all that.

Q. Look at your log and state when they were put on board, was it at Messina? A. At Messina on June 11. 1095

Q. Those were stowed in lower No. 1 hold according to your stowage plan, were they? A. Yes, barrels were lying fore and aft, and the tiers athwartship, and this tier on top of the lower tier was lying in the crotch of the bottom tier, one barrel in the crotch of the tier and the barrels were all wedged up with small kinds of wood to keep them.

Q. To prevent them from resting on the bilge? A. Yes.

1096 Q. Was the lower tier resting directly on the tank top? A. Yes, with quoins underneath.

Q. Did you see the quoins that went underneath? A. Yes.

Q. They were proper quoins? A. Yes.

Q. Proper stowage? A. Yes, the stowage was in every way all right.

Q. Have you had charge of the stowage of cask cargo before? A. Oh, yes.

Q. Just in the ordinary way? A Just in the ordinary way.

Q. How many layers of casks were there? A. About 4 I should think, as far as I remember.

1097 Q. The second tier was laid right in the crotch of the first tier? A. Yes.

Q. And so on with the second, third and fourth? A. Yes, brought the tiers up to a point all the time.

Q. Separated under the corners by the ordinary quoins? A. Yes.

Q. What did you do before loading any other cargo on top of this cask cargo? A. We only straightened it out with small dunnage, straightened where there was any breakage for cork to go on top.

1098 Q. Cork was light? A. Cork was light.

Q. How high would you say the cask cargo came, the four tiers? A. A third of the height of the hold.

Q. How high is the hold? A. The hold would be about 26 feet, 25 feet.

Q. You would say 8 or 10 feet high from the casks? A. Yes.

Q. The third officer tallied for the forward hold? A. Yes.

Q. He is no longer with the ship? A. No, he is in the Aspinet now, a Standard Oil ship.

Q. Was anything said to you by the consignors of the cargo as to the quality of this citrate of lime? A. No. 1099

Q. As to its being perishable in nature? A. No.

Q. Or as to its value? A. No, nobody said anything to me about any of the cargo as far as that is concerned.

Q. You didn't see the consignor? A. No.

Q. Did you sign the mate's receipts? A. Signed them as the cargo came aboard.

Q. Were you down in the hold at all when this was being loaded? A. Oh, yes.

Q. What was the character of the weather during the trip across with this cargo? A. Where from? 1100

Q. From Messina on until you got up to North Sydney? A. Fine weather.

Q. Did you attend to the ventilation of the cargo? A. Oh, yes.

Q. What was done? A. Hatches were open all the time, ventilators on, everything that could be done.

Q. Tarpaulins over the hatches in case of rain, protected? A. Yes.

Q. Properly protected, were they? A. Properly protected in case of rain. 1101

Q. From Messina you went to Gibraltar and then to Lisbon? A. Yes.

Q. And you took on cork cargo there? A. Yes.

Q. That was the cargo that went on top of this cask cargo? A. Yes.

Q. Did you see the cask cargo when the cork was put in? A. Yes.

Q. Did it appear to be in good condition then? A. Yes.

1102 Q. Do you know anything about the engineers who were signed off at Lisbon? A. I know they were signed off, but that is practically all that had to do with me.

Q. You didn't go to the consul's office? A. I hadn't anything to do with them, that is not in my line.

Q. After sailing from Lisbon about three days out you learned of trouble with the turbines? A. Yes.

Q. Did you assist in fixing up the low pressure turbine so it could be used? A. Yes, all the officers were down doing what they could.

1103 Q. Everybody was working? A. Yes.

Q. The engineroom force was working all the time? A. Never stopped.

Q. Then after temporary repairs had been made to the low pressure you held a consultation with the captain? A. Yes.

Q. And decided to go into Ponta Delgada? A. Yes.

Q. You did go in there? A. Yes.

Q. Where temporary repairs were made? A. Temporary repairs were done there to the satisfaction of Lloyds' surveyors.

1104 Q. And then you came out? A. Then came out from there.

Q. You came to North Sydney? A. Yes.

Q. And there took on a small amount of bunkers? A. Yes.

Q. Sufficient to take you to Halifax? A. Yes.

Q. Do you know why you didn't take more bunkers there? A. No, I have nothing at all to do with that.

Q. That is the captain's business? A. Captain's work, master's business.

Q. Taking up the matter of your trip from Sydney down to Halifax—you may refresh your recollection from the log, use that wherever you want to—have you a recollection as to just what occurred on the way down? A. Oh, yes. 1105

Q. What was the state of the weather when you left Sydney? A. Fog.

Q. Will you refresh your recollection from the log?

Mr. Loughran: The chief has said he has a full recollection, if he has a full recollection he does not need to use the log. 1106

A. I didn't say I have a full recollection, if you want to go into details, times or dates.

Q. Your log is correct? A. My log is exact.

Q. It is written by yourself? A. Yes.

Q. It represents the facts? A. Yes.

Q. Use your log.

Mr. Loughran: Objected to, he has a recollection as to the points in issue.

Q. Have you a recollection as to the state of the weather and the hours and minutes of the day in which these things transpired? A. Just according to what things you are going to ask about. 1107

Q. On all the details?

Mr. Loughran: Objected to, ask the questions and if the chief officer needs to refresh his recollection then let him do it.

Q. Will you consult the log book and state what the weather was when you left North Sydney?

1108 Mr. Loughran: Objected to, the chief officer says he knows what the weather was when he left Sydney.

Mr. Sprague: He has just stated he is not certain about the details.

Mr. Loughran: If the chief officer is just to read into the record what the captain has read out of the log I don't see any need.

Mr. Sprague: I am not asking him to read the log, I am asking him to refresh his recollection as to what the weather was.

(Witness reads log.)

1109

Q. What is your recollection now, having been refreshed from the log? A. Foggy weather.

Q. Fog when you left Sydney? A. Clear, became hazy and then fog.

Q. It was clear when you left Sydney and soon became foggy? A. Foggy, soon became dense fog.

Q. Do you recall about what time of the day it became dense fog? A. About 7 o'clock at night.

Q. Did that fog last for some time? A. Considerable time.

1110 Q. Throughout the night? A. Throughout the night, oh, yes.

Q. Throughout the following day? A. All the following day.

Q. What watch did you stand that night? A. 4 to 8.

Q. That is on the evening prior to the stranding? A. Yes.

Q. And when were you next on watch? A. 4 to 8 in the morning.

Q. Did you go on watch at 4 o'clock? A. Yes.

Q. Were you on watch at the time of the stranding? A. Yes. 1111

Q. Did you have anything to do with taking the soundings with the sounding machine? A. No, I was on the bridge.

Q. Who took those soundings? A. The third officer.

Q. Do you know they were taken? A. Oh, yes.

Q. Was the captain on the bridge with you? A. Right up to just before she struck, he went down for his coffee, about a couple of minutes.

Q. Who else was on deck? A. The second officer.

Q. Where was he? A. Going with the carpenter closing sluices. 1112

Q. Do you have a quartermaster on the bridge? A. Yes, two, one on lookout.

Q. Where was the lookout? A. On the forecastlehead.

Q. Seamen, were they? A. Yes.

Q. At what speed were you navigating at the time you stranded? A. Reduced speed.

Q. What orders did you have to the engineers on your telegraph? A. Standby.

Q. What precautions were you taking in addition to the reduced speed? A. Keeping the whistle going. 1113

Q. Was there any wind? A. Yes, there was quite a fresh breeze, on the ship's beam.

Q. Port or starboard? A. Port beam.

Q. Did you have any notice whatsoever of being in the neighborhood of land, or coming near a submerged object? A. No, not in the least.

Q. How far ahead of your ship could you see, if you could see ahead? A. Could not see ahead, could not see over the bow, dense fog.

1114 Q. What was the first you knew of the stranding? A. A bump.

Q. A sharp bump? A. Sharp bump back, and another bump back again.

Q. What did you do? A. Reversed the engines.

Q. Did the engines reverse? A. They did and came off.

Q. What did you do? A. Superintended putting out the lifeboats.

Q. The captain came on the bridge at once? A. Oh, yes.

Q. Did you give any instructions before he arrived on the bridge? A. Yes, called all hands to
1115 close the sluice valves immediately, the carpenters.

Q. Were they closed? A. Yes, immediately.

Q. The second officer took charge of that? A. Yes.

Q. Those sluice valves are closed from the deck? A. From the deck, yes.

Q. Was that carried out immediately? A. Yes, directly she struck.

Q. Did you go up in the bows at all? A. Oh, yes.

Q. Did you see the extent of her damage from
1116 the deck of the ship? A. No, could not see anything, only heard water rushing in.

Q. Could you hear it? A. Yes, from the deck, seemed as if the whole lot was coming in.

Q. Did you go down to examine the hold? A. No, because the fore peak and hold were full of water right away.

Q. Who took the soundings? A. The carpenter, an officer there watching him.

Q. How soon after the stranding did you get backed off? A. I should think about 20 minutes,

it was all clear again, it takes time to get stern- 1117
way on a turbine ship, you know.

Q. Then what did you do after having backed off? A. We pulled out clear as we thought, as far as we could, to find anchorage.

Q. What did you next do? A. Sent out wireless calls, had communication with Canso.

Q. Did you soon discover that the ship was going to stay up? A. Yes, found she was going to stay up all right.

Q. No water came through No. 2 bulkhead? A. No water remained stationary after we got the valves closed, no more water came in.

Q. Did you do anything to trim the ship? A. 1118
Yes, dumped out all the ballast tanks, ran the ballast in aft to try to put her more on an even keel.

Q. Her propeller was out of water? A. Yes.

Q. Did this bring her down fairly on an even keel? A. Quite considerable lot, quite a good deal.

Q. There was no question but what the water filled No. 1 hold as far as the level of the sea? A. Yes, that is right.

Q. It did fill it? A. Yes, it did.

Q. Then you laid by for some time in that 1119
position, did you? A. Yes.

Q. And later it became clear? A. And started to proceed, found we were going to get short of coal, sent out a wireless message for assistance; the *Lady Laurier* came to our assistance.

Q. She had first convoyed you? A. Convoyed us to a smooth place, and then he put his tow overboard.

Q. He gave you a hawser? A. Yes.

Q. And you went in in tow? A. Into Halifax.

1120 Q. Were you using your own engines, too? A. Oh, yes.

Q. Did you have anything to do with what was done to the ship at Halifax, does that lie within your duties at all? A. Not a material great lot, the shore captain was there, and the captain, I had very little to do with it; Lloyd's surveyors were there, it was all done to Lloyd's surveyors' satisfaction, that is practically nothing to do with me, it is all taken out of my hands when we got to Halifax.

Q. You mean the shore captain? A. The shore captain and the Lloyd's surveyors.

1121 Q. Captain Gilboy? A. Yes, and Lloyd's surveyors.

Q. They came to your ship the day after you arrived, or the day you arrived? A. The same day I think.

Q. With a wrecking boat? A. Yes, with a wrecking boat.

Q. And they made an examination by a diver? A. Yes.

Q. And after they had gone the next day you moved? A. Alongside the Furness pier.

Q. Then what did you do with that cargo?

1122 A. Shifted cargo No. 1 and over to the after end of the ship to try to fetch her out to an even keel.

Q. How much did he shift out of No. 1? A. Down to the water as far as he could get, just to the top of the casks, there was a tier of cork practically to the between decks, as far as we could get.

Q. You took out some of the between decks? A. Took out some of the between decks.

Q. Did the water cover the layer of cork on top of the casks? A. Yes.

Q. So you had to leave one layer of cork in? 1123
A. Yes, had to leave a lot.

Q. And you took some out of No. 2 also? A. Yes, and put it in No. 3.

Q. What was the purpose of that? A. Strengthening the bulkhead, in case of leakage, shoring the bulkhead up.

Q. Was that done under Lloyd's orders? A. That was done under Lloyd's orders.

Q. What did you do with the cargo you took out? A. Out of Nos. 1 and 2 into Nos. 3, 4 and 5.

Q. In the between decks? A. In the between 1124
decks.

Q. Anything else you did? A. Put about 300 tons of stone ballast on the stern.

Q. What effect did that have? A. Put her propeller well down in the water.

Q. Then after that had been done you came on to New York, did you? A. Came to New York with a tug towing, and using our own steam.

Q. Did you come down to New York without any trouble? A. Yes, had a pilot and two tug boat captains came around with the ship.

Q. After you arrived in New York what did 1125
you do? A. Went to Pier C at Jersey City to discharge.

Q. Discharge the cargo? A. Yes.

Q. Did you go into No. 1 hold when she was there? A. Oh, yes.

Q. Was the cask cargo still under water? A. Still under water.

Q. Did you go into No. 1 hold at Halifax after you had put the ballast on? A. Yes.

Q. Was the cask cargo still under water? A. Still under water.

1126 Q. Could you have discharged the cargo at Halifax? A. Possibly, not unless you had divers.

Q. If you had a diver put a sling under the barrel? A. Yes.

Q. A diver would have to go down every time you took one out, is that practicable? A. That is the only way it could have been done, to my knowledge.

Q. The casks had been under water several days? A. Yes.

Q. You have had considerable experience with casks cargo you say? A. Not considerable, I have had experience with cask cargoes.

1127 Q. What is your opinion based on your experience, as to whether if the water was going to leak into the barrels it would have leaked in before you reached Halifax?

Mr. Loughran: Objected to as to form, he is not qualified as an expert witness as to casks, and he simply says he has handled cask cargoes.

A. Right through the barrel inside of 12 hours, in my opinion.

Q. Have you ever been on a ship where you

1128 have had barrel cargo under water? A. No.

Q. Was this matter of whether the barrel cargo had become soaked or not discussed at Halifax? A. No, not that I know of.

Q. You didn't hear it discussed at all? A. No.

Q. You considered it was spoiled at the time, didn't you? A. Oh, yes, immediately the water touches it.

Q. What kind of substance was it, do you know? A. Just like slate lime, ordinary lime.

Q. Powder? A. Yes, powder.

Q. What kind of casks were they that this 1129
citrate of lime was in? A. Casks of about 600 or 700 pounds weight, I should think.

Q. Did they resemble any other kind of casks you had ever handled? A. No, not that I know of.

Q. Did they appear to be water tight? A. No, they would not have them as water tight.

Q. Do you know whether they were tongue and groove or not? A. They had a bung in, the cask was made in the proper order, chime, hoops on them and everything.

Q. Did they look like olive oil casks, tobacco 1130
casks? A. More like tobacco than anything else, you could see through some of them.

Q. You could see holes in some of these casks? A. Yes, anybody would see you could not have oil in them.

Q. Where could you see the holes in the casks, between the staves? A. Yes, they would not hold oil.

Q. After you arrived at New York could you have discharged those casks from the vessel before the ship had been repaired? A. No.

Q. By that you mean you could not without a diver? A. Without a diver. 1131

Q. When you went into dry dock could you have discharged those casks in the dry dock?

Mr. Loughran: Objected to, the captain has testified that the owners were the only ones that had anything to say on the question as to whether it could have been done or could not have been.

Mr. Sprague: I am asking physical impossibility, not a question of whether he would be allowed.

1132 Q. Was there any place to discharge it when she was in dry dock? A. No, no place at all.

Q. The ship could have lifted them out of the hold? A. Nowhere to land them.

Q. Those casks have been and are being discharged at the present time, aren't they? A. At the present time, yes.

Q. On lighters? A. Yes.

Q. Were they discharged as soon as the vessel was repaired and in the water? A. As soon as the water was out.

Q. In your opinion this was the first chance
1133 to discharge? A. The first chance to discharge, yes.

Q. Did you see the barrels taken out? A. Yes.

Q. Were they broken, any of them? A. A considerable lot of them, yes.

Q. Full of water? A. The water came out, forced the heads out, swelled the cargo inside of the barrels.

Q. The force of the stranding extended back to hold No. 1? A. Oh, no, about 3 frames back from the fore peak tank bulkhead.

Q. How aften were the bilges and tanks sounded after the stranding? A. Every hour.

1134 Q. Until you arrived in New York? A. The water was constantly watched by an officer and the carpenter until we got to New York.

Q. Did the water ever get back of No. 2 bulkhead? A. No, the water was kept in one place.

Q. Did you see the vessel when she was in dry dock? A. No, not the first, not when the damage was done, I was ill; I had an accident on deck; I didn't see it, but I saw it the second time, I didn't see it before the old plates were taken off.

Q. How far did it extend back? A. About 3 frames, into No. 1 hold.

Q. Did you see the old plates? A. Yes, all jammed up. 1135

Q. Jammed right back? A. Jammed right back, yes, as if shoved the face in.

Q. The rivets all shoved out? A. Yes.

Q. And the frames broken? A. Frames broken and everything, the stem post.

Cross examination by Mr. Loughran:

Q. I believe you said that the second officer was closing the sluices when the vessel hit, was he closing them at the time she hit? A. No, he was not, the carpenter was closing them at the 1136 time she slid off, directly she hit I gave the order.

Q. He was not closing them before? A. No, could not because we didn't expect her to hit.

Q. I didn't know but what you were so near land you were taking that as a precaution? A. Oh, no.

Q. When you say the vessel was running in the fog under reduced speed, what do you mean? A. I mean the ship was on one engine and she could not do anything else but reduce speed, when a ship has only half her engines.

Q. Isn't that the way she came all the way across? A. Yes, only making about 4½ miles 1137 an hour when we struck.

Q. Was she coming under reduced speed because you had reduced it, or because of the condition of the engines? A. She was reduced from the bridge and because of that doubly reduced.

Q. You think she was making what speed? A. About 4¼ to 4½.

Q. What would she make under full speed under those conditions? A. I could not say, probably 6, 7 or 8.

1138 Q. Even though with half her engines cut off? A. Yes.

Q. How long had you been going on in the fog at the time she struck? A. How do you mean, I don't get you?

Q. From the time you went into the fog so you could not see to take any bearings or any sights until she struck? A. We got the fog the night previous, about 7 o'clock, we struck the next morning about half past 6, it was all foggy.

Q. During that time how did you get your bearings, how did you know your position during that time? A. We hauled the ship down off
1139 shore during the night, clear of the land, trying to clear to a safe berth during the night.

Q. Did you make any attempt to locate your exact position during the night? A. No, it was not necessary.

Q. When you are travelling near shore in a fog isn't it customary to take a sounding to check up? A. We took a sounding just shortly after 4 o'clock in the morning.

Q. Just one? A. Yes.

Q. You were travelling in fog near shore, and only took one sounding? A. Yes.

1140 Q. Do you consider that good seamanship? A. I do.

Q. One sounding in 12 hours? A. Yes.

Q. What sounding did you get? A. 91 fathoms, it is not necessary to take any more when you get that depth of water.

Q. Were you able to tell from the chart accurately where you were from that sounding? A. Well we thought we could.

Q. From the time that you took the last sounding until the time you struck, at 4 miles and a

half an hour you would have gone how many miles, can you tell me from your log? A. No, I can't tell from this. 1141

Q. Have you got your time there when the sounding was taken? A. Yes, I have the time here, 4.30 A. M.

Q. That is during your watch? A. Yes, that is my watch.

Q. It was during your watch? A. Yes.

Q. It was shortly after you came on watch? A. Yes.

Q. She struck at 6.30? A. At 6.30, yes.

Q. Were you able or not to chart your position from the sounding you took? A. It was charted, what we thought to be our position, you can't do anymore than that, go by the depth of the water. 1142

Q. From the depth on the chart, and then you went two hours in the fog and piled up? A. Yes.

Q. After you went on some mention was made that the propeller was out of water, that is not quite correct, is it, she was partly out of water, that is, or you would not have been able to back off if she was out of water? A. Yes, she was backed out before she was full, it takes some time to fill that ship, it had to work its way through the citrate of lime and the cork: she filled in about 20 minutes. 1143

Q. You think she had backed off before the water had filled the hold? A. Probably so.

Q. You mentioned that at Halifax cargo No. 1 could have been take out by divers, was that considered? A. I don't know.

Q. You didn't make any recommendations to that effect? A. I have nothing to do with that,

1144 it was in other people's hands, Lloyd's surveyors were there and took every authority out of my hands.

Q. When this citrate of lime was loaded you spoke of having noticed that it was a substance something like slack lime, something that leaked out of the barrels so you could see it? A. Oh, yes, on the deck.

Q. In other words, the barrels were not supposed to be even tight enough to prevent the leakage of the stuff itself? A. Yes, fine stuff, I don't say a great lot but it was enough to see what it was, it was not water tight, or oil tight either.

1145 Q. Were you present at any of the conferences held with Lloyd's surveyors at Halifax? A. No.

Q. The captain was present, was he? A. I believe so, I can't swear to that.

Q. You spoke of a shore captain? A. Yes.

Q. Who was that, may I ask? A. Port captain, Captain Gilboy for the owners.

Q. The port captain at Halifax? A. No, he belongs in New York, it is for the owners in New York he came through to Halifax.

Q. To attend to the ship? A. Yes.

Q. And he took charge of the ship at Halifax?

1146 A. I don't say he took charge, Lloyd's surveyors took charge of the ship, everything was in Lloyd's surveyors' hands.

Q. When the vessel reached New York the question was asked as to whether it was a physical possibility to unload the citrate of lime while the vessel was in dry dock, I believe you said that you did not believe it was, is that correct? A. Yes.

Q. As a matter of fact were not a number of barrels taken out and placed on deck? A. Yes,

but never discharged, never taken out of the ship, just removed. 1147

Q. How many barrels could have been taken out and placed on deck? A. I don't know, they would not allow you to place them all on deck.

Q. Who would not? A. The dry dock owners.

Q. For fear the ship would capsize? A. No, for the sake of the pontoon. I wanted to pump some water out of one end of the ship and the dry dock owners would not allow it because it would fetch the ship out of straight; it is in 3 pieces, it would make one end lower than the other 2 parts and probably cause some damage, make it capsize. 1148

Q. That was one of the reasons? A. I don't know, they may have stopped it on account of that, the carpenter would have something to say about that.

Q. You were not there when you first went on dry dock? A. No, I was sick then.

Q. When were you taken sick? A. Me?

Q. Yes. A. It is not in these logs, not extended far enough for that; there is no dry dock work here.

Q. Was it after the lemons and everything had been discharged so far as you remember? 1149
A. Oh, yes, we had been in dry dock for survey.

Q. Did the shore captain you mentioned, Captain Gilboy, come down with the ship from Halifax? A. No.

Q. Did he live on the ship at Halifax? A. No.

Q. Was he out on the ship every day? A. Yes.

Q. Did you see him around the ship? A. Some days I saw him, other days I did not.

Q. Did you see the captain conferring with him? A. No, I never saw him doing anything.

1150 Q. You didn't see him with the captain? A. No, but he may have been, all sorts of people go in the captain's room, they have nothing to do with me.

Q. You don't know when he arrived in Halifax? A. No, that his own personal.

Q. When was the first day you saw him? A. The day we arrived.

Q. Was he waiting for the ship when you got in? A. As far as I know, yes, I think so.

Q. Do you happen to know whether he was there when you left? A. No, it has nothing to do with me.

1151 Q. You don't remember the last day you saw him? A. No.

Re-direct examination by Mr. Sprague:

Q. Are you sure that Gilboy was there when you arrived at Halifax? A. No, not sure.

Q. If you put any considerable number of these casks on the deck of the ship while in dry dock, would that affect her stability? A. Probably so, more weight on the keel blocks, may have caused, tended to cause trouble to the ship and dry dock.

1152 Q. On dry dock she is lined straight up on blocks? A. Lined straight up.

Q. With lines from one side to the other? A. Yes.

Q. If you get more weight on one side than the other it is likely to cause trouble? A. Yes, and the dry dock being built of three separate pontoons it fetches more weight on the one than the other.

Q. After you took this sounding with your deep

sea sounding machine at 4.30 A. M. the day of 1153
the stranding, where did you consider your ship to be as far as your position is concerned in reference to the coast? A. All clear of the coast, pretty well down for Halifax.

Q. You traced it out on the depth chart, did you? A. Yes.

Q. About how far off the coast did you think you were? A. Thought about 20 miles off the coast.

Q. What is your explanation of how the vessel got so close into land, if you have any? A. Strong wind on the beam, strong set.

Q. In shore? A. In shore. 1154

Q. Did the slow speed of the vessel have anything to do with it? A. The slow speed of the vessel had quite a lot to do with it, the set of the current and strong breeze on the beam all tended to set the ship on the shore.

Q. Had you taken that into consideration when you held her off shore? A. Yes.

Q. You think you didn't allow quite enough? A. Oh, yes.

Q. When did you take your next observation or bearing to find your position after this? A. We got bearings after standing out Canso direc- 1155
tion.

Q. Where did that show you were? A. I can't say exactly the position.

Q. Whatever the log states is correct ? A. Yes, it is in the log.

Q. You have master's papers, haven't you? A. Yes.

Q. How long have you held master's papers? A. About 10 or 11 years; I have a 7 and one half years' recommendation in my pocket from C. T. Bowring in London and New York.

1156 Q. Were you employed by Bowring? A. Yes, 7½ years.

Q. What ships were you employed on for Bowring?

Mr. Loughran: Objected to as immaterial.

A. I. & O. boats.

NORMAN C. BROCKWELL, being duly sworn and examined as a witness for claimant, testifies as
1157 follows:

Direct examination by Mr. Sprague:

Q. How old are you? A. 23, nearly 24.

Q. And you are second officer on the *Willdomino*, are you? A. Yes.

Q. How long have you been going to sea? A. I have been going to sea now it will be 8 years.

Q. When did you join the *Willdomino*? A. April 5, 1919.

Q. At Cardiff? A. At Cardiff.

Q. Have you been with her continuously since
1158 then? A. Continuously since then.

Q. Did you join her as second officer? A. No, I joined as third officer, promoted to second on November 9, 1919.

Q. Before you joined the *Willdomino* as third officer were you third officer on other British ships? A. An other British ship called the *Sizerth Castle.*

Q. Were you also third officer on a tanker? A. On a tanker.

Q. During the war what experience did you

have? A. I served my apprenticeship on ships, 1159
and also in that tank part of the time.

Q. British Merchant Service? A. British Merchant Service.

Q. What papers do you hold? A Second officer.

Q. How long have you held second mate's certificate? A. Since March last year.

Q. Do you recall the loading of cargo at Messina specially? A. Yes.

Q. Just before you came on this voyage? A. Yes.

Q. Do you recall the loading of citrate of lime? A. Yes, loaded in lower hold No. 1. 1160

Q. Did you see that being loaded? A. I saw some of it being loaded.

Q. You tallied the after part of the ship? A. Yes.

Q. The third officer tallied the forward part? A. The third officer tallied the forward part, yes.

Q. But you yourself saw the stuff coming on board? A. I saw some of it coming on board.

Q. Do you recall the appearance of the barrels or casks as they came on board? A. Yes, pretty good condition.

Q. What kind of casks were they? A. Big, 1161
large casks, seemed slightly powdery as if the contents came out of the side, might have been off the road.

Q. Were they brought on in slings? A. Brought in lighter and then lifted from the lighter in slings.

Q. Put right in the hold, or deposited on the deck? A. Put right in the hold.

Q. When did you notice this light powder? A. As soon a they came alongside the powder came

1162 over the top, might have been dust off the road.

Q. But there was a white powder on the barrels? A. A white powder on the barrels.

Q. I don't suppose you went down in the forward holds at all? A. No.

Q. You were looking after the after end? A. After the after end, yes.

Q. After you had taken your cargo on at Messina you went to Gibraltar, did you not? A. Yes.

Q. And coaled there? A. Coaled there.

Q. And then went to Lisbon? A. Went to Lisbon, yes.

1163 Q. And took on further cargo? A. Took on further cargo.

Q. Cork? A. Cork and sardines.

Q. After sailing from Lisbon, some three days out, you had some engine trouble? A. Yes.

Q. Did you assist? A. I assisted part of the time.

Q. What did you do down there? A. Blanking off flanges.

Q. Were the engineers working? A. The engineers were working.

Q. Worked all the time? A. Yes, working all the time.

1164 Q. And finally went on under your low pressure turbines to Ponta Delgada? A. Yes.

Q. What did you do there? A. Stayed there, took on more coal, some repairs done to the engines, compasses etc.

Q. Then you left and went to Sydney? A. Went to Sydney.

Q. Took on a small amount of coal there? A. Took on a small amount there.

Q. Do you know why it was you didn't take on more? A. Couldn't get it, from all I could understand, labor troubles.

Q. Then you left Sydney to go down to Hali- 1165
fax, did you? A. Yes.

Q. What happened soon after you left Sydney? A. Soon after we left Sydney, the next morning about half past six, I was asleep in bed, and I felt two bumps, and know the ship must have hit something or other, so I jumped out quickly and went to see what was the matter, was informed she must have struck some submerged object while going along in the dense fog, so immediately under the captain's orders went and shut all the sluice valves in the ship, reported the same to the captain on the bridge that it was done.

Q. How soon did you get on the bridge after 1166
this sound of the stranding occurred? A. Straight away, probably about a minute or a minute and a half.

Q. Was your room just below, close by? A. Close below.

Q. You ran directly to the bridge? A. Ran directly to the bridge.

Q. Who did you find on the bridge when you got there? A. The captain, chief officer was just coming down to get the crew on the life boats in case we sank altogether.

Q. After you reported to the captain that the 1167
sluice valves had been closed, what did you do? A. Assisted them getting the boats out; the third officer was sounding.

Q. Where was the third officer sounding? A. Right along, sounding off the forecastlehead then right along the side of the ship.

Q. Was he sounding with the lead? A. He was sounding with the lead.

Q. Had the vessel backed off from the submerged object when you reached the bridge? A. Not when I reached the bridge.

1168 Q. How soon after you reached the bridge did she back off? A. I should think about 20 minutes or so, might be more.

Q. Did you make any of the soundings in No. 1 hold? A. I was with the carpenter when he made the soundings, I could not see the exact soundings first, but finally got up to 20 or 21 feet.

Q. You were with him when he made those soundings? A. When he made those soundings, yes.

Mr. Potter: Don't you think you had better ask the witness to testify.

1169

Q. Had you been on watch all night? A. From 1 o'clock to 4 o'clock.

Q. What was the condition of the weather during that time? A. Thick fog.

Q. Who was on the bridge with you? A. The captain was on the bridge nearly all the time.

Q. Who else was on the bridge, if anyone? A. The quartermaster on the lookout, quartermaster at the wheel.

Q. Anybody in the forecastlehead? A. Two sailors on the forecastlehead.

1170 Q. What was the speed of the vessel at the time? A. I should think about 5 or 6 knots, she was not doing very well at all.

Q. Any orders to the engine? A. No orders, during my watch.

Q. What was the telegraph? A. The telegraph indicated standby.

Q. After he had backed off from the reef what did you do? A. Backed off and then we let her drift, kept sounding all the time she was drifting out, kept partly going astern for the time being,

after backing off finally got into about 30 fathoms of water and dropped anchor. 1171

Q. How long did you remain at anchor? A. Remained at anchor up to that night, I think it was.

Q. What did you do then? A. Hove up anchor and started away, found she would not steer however, as her head was down and nearly all the propeller out of water, could not manage her.

Q. Did you do anything to trim the ship? A. Pumped out the forward tanks.

Q. Did you finally come into Halifax? A. Finally came to Halifax.

Q. Under tow? A. She arrived in Halifax under tow. 1172

Q. Who came on board your ship at Halifax? A. Surveyors, underwriters, as far as I remember, several other gentlemen, I don't know who they were; I guess London Salvage Association.

Q. What did they do? A. The *Maggie Marshall* wrecking boat came alongside and they sent a diver down, the diver examined the damage and came up, drew a chalk plan what it was first of all, afterwards I saw another plan made out in pencil.

Q. What was done after the diver came up? A. After he came up there was a conference held, it was decided to take the cargo out of the fore hold, which they did, took the cargo out of the fore hold, and some of the cargo out of No. 2, shored up, some taken into the after holds, what could not be taken into the after holds was taken on deck. 1173

Q. Where was the vessel while all this was done? A. Laying at Furness's wharf.

Q. How much of the cargo did you take out of

1174 hold No. 1? A. Took it out, practically out of the between decks, and that which was not damaged on the top of the lower hold.

Q. Did you go into No. 1 hold while you were taking this out? A. Yes, I was down in No. 1 and you could see the water down in the center.

Q. How far was the water up in the hold? A. The water was keeping its level, it was going down as the ship was coming up, it was well in the hold when I first saw it.

Q. Did you see the casks? A. Saw some of the casks down between the sides of the cork.

Q. The casks above the water or underneath
1175 the water? A. Underneath the water.

Q. All of them? A. No, some of them had come up above the water, being as the tanks had been pumped out in the forward end so the casks had been wet.

Q. Did you take out all the cork in No. 1 hold? A. No, all of it was not taken out because some of it was wet, it was jammed up.

Q. Could you have discharged the casks at Halifax? A. Not without a diver.

Q. After doing all these things to the ship that you say you did, you came on to New York? A. Came on to New York.
1176

Q. That was in tow? A. That was in tow.

Q. What was done when you arrived in New York? A. When we arrived in New York she was taken to the piers, cargo of lemons were discharged at Pier C Jersey City.

Q. What was done next? A. She was taken up to an open wharf at 135th Street, I think it was, and all the cork and several other things were discharged there.

Q. What was done after that? A. Towed down to Tietjen & Lang's dry dock.

Q. Was she put in dry dock? A. She was put 1177
in dry dock.

Q. Were you on her when she was put into dry dock? A. I was on her when she was put into dry dock.

Q. Did you observe the damage? A. Yes, I observed the damage.

Q. State what the damage was? A. The whole of the fore foot of the ship had been pushed up like that, pushed right in (indicating).

Q. How far had it been pushed back? A. Pushed back to about two floor plates abaft of the collision bulkheads.

Q. That is between the fore peak and No. 1? 1178
A. Yes.

Q. How high did the damage extend? A. Extended up to I think about 6 or 7 feet.

Q. Could these casks have been discharged from the vessel before she was repaired? A. No, it was not discharged before she was repaired.

Q. Could they have been? A. It needed a diver to have got them out.

Q. Could they have been discharged, in your opinion, while in dry dock? A. Very difficult to discharge while in the dry dock, being as they would have to heave them out and put them right 1179
on the dry dock where they were, long tedious work.

Q. After they were put in the dry dock if that had been done—— A. Then they would have had to be rolled away on shore and then loaded on trucks.

Q. There was really no place to put them, was there? A. There was no place to put them.

Q. As soon as your vessel was repaired and placed in the water were these casks discharged? A. Started to discharge.

1180 Q. You are still discharging them? A. Still discharging them.

Q. On to lighters? A. On lighters.

Q. In your opinion could they have been discharged prior to the time they were discharged? A. No, I don't think so.

Q. At the tme you saw these casks in Halifax they were under water? A. Yes.

Q. Did you see them after they arrived in New York when you were discharging the rest of the cargo? A. Yes.

Q. Were they then under water or above? A. Some of them were under water.

1181 Q. In your opinion from the appearance of the casks, when they came on board do you think that they had become saturated with water at the time you reached Halifax, or not? A. Yes, I should think they were saturated right through by the time we reached Halifax.

Cross examination by Mr. Loughran:

Q. Is it customary for officers to work in the engine room during the engine room repairs? A. No.

1182 Q. Did you get paid extra for that? A. No, went down and volunteered to get the ship along.

Q. How did they happen to need you down there and the rest of the officers went there, were not the engineers, assistant engineers able to handle it? A. They were all down there, it was taking so long I thought if I could do anything, I would go down.

Q. You say it took so much time? A. It took time finding out what the trouble was, and then blanking it off.

Q. The engineers had trouble finding what caused the damage? A. Had to open up practically everything to see what was the matter, first of all, an endless lot of work. 1183

Q. They didn't know what happened? A. No, everything is boxed in, you can't see absolutely anything to a turbine.

Q. Do you know many men they had in the engine room proper? A. Four engineers and the chief, Chinamen greasers.

Q. Had a mixed fireroom crew? A. Chinamen firemen crew.

Q. Did they know anything about the engine at all? A. I don't think so. 1184

Q. Were they aiding in the repairs? A. As laborers.

Q. What kind of weather did you have on the trip? A. It was pretty decent on the whole.

Q. It was an exceptionally good trip? A. Pretty good trip.

Q. Your watch is the 12 to 4 watch? A. 12 to 4.

Q. When the third officer turned over the deck to you did he tell you just where you were? A. Yes.

Q. Tell you what course he was stearing? A. What course he was stearing, indicated where he was. 1185

Q. On the chart? A. On the chart.

Q. Did you simply take his word for where you were? A. No, I always inspect the chart and the course she has run since the last point of land was seen.

Q. What did you do, did you find out exactly where you were when you took the deck? A. Noted where we were when I took the deck,

1186 laid the course off on the chart, measured the distance she was logged during that time, measured it off on the chart.

Q. Did you take any soundings? A. No soundings were taken, practically useless to take soundings there, it was over 100 fathoms in depth there.

Q. How did you know what the depth was, you figured the depth if your position was correct on the chart? A. Yes.

Q. You don't know where you were? A. No, if she was anywhere else she must have been set in.

1187 Q. As a matter of fact you must have been somewhere else than where you supposed you were in order to strand? A. Yes, but she didn't strand until half past six.

Q. All that time you were going on your course that led up to your piling up, is that right? A. She must have got set in the whole time.

Q. If you had taken soundings and found out where you were, would the accident have occur? A. I dare say, the soundings ran right in to the hight, right into the gut; if you take

1188 soundings you might have been right there in the gut, 98, and if you were 10 miles out you might have 98.

Q. There was no way of fixing your lead to get the bottom? A. To get the bottom, but the bottom is practically the same all around.

Q. You don't think there was any way to check up where you were? A. Not that I know of.

Q. When you are running in a fog don't you take some means of checking up? A. If you hear a fog signal, or if you think you are drifting.

Q. Isn't it one of the adages to use your lead 1189
in fog, a British adage? A. Yes, lead was used in the 8 to 12 watch, if I remember right.

Q. You don't know, the third mate didn't report it to you? A. I can't remember whether he did or not now, it is a long time ago.

Q. The captain was on the bridge with you all the time? A. Yes.

Q. Did you suggest to the captain, or he to you anything about soundings? A. No.

Q. You considered as the captain was on the bridge you should simply wait for orders from him? A. That is generally what is done.

Q. You speak of certain surveyors and under- 1190
writers coming on the vessel at Halifax? A. Yes.

Q. How do you know they were underwriters? A. That is what I am taking it, so I was told.

Q. As a matter of fact you simply saw some men come on board, you don't know whether they were underwriters? A. I was told they were underwriters, whether they were or not I don't know.

Q. Did any of those men speak to you in regard to the ship? A. Nobody spoke to me.

Q. Were you present at any conference in re- 1191
gard to the ship? A. In regard to the ship, no.

Q. Did you see anybody who represented the owners at Halifax? A. Yes, there was Captain Gilboy, shore superintendent.

Q. Do you know when he arrived at Halifax? A. I couldn't say the exact day when he arrived.

Q. When did you see him first? A. The morning after—no two days after we arrived.

Q. You didn't see him the day you arrived?

1192 A. No, he was not there the day we arrived, came the following morning.

Q. What apparently did he do when he arrived? A. There was a conference held, from what I understand, with the captain and the surveyors.

Q. Was that on the ship? A. That was aboard the ship, I believe, in the captain's room.

Q. Were you told what the result of the conference was? A. No.

Q. The only thing you know, at Halifax certain shifts were made in the cargo and you came on down? A. We came on down.

1193 Q. And these people on board you simply thought they were underwriters and surveyors, or were told by somebody else they were? A. Yes.

Q. You don't know of your own knowledge? A. No, I don't know of my own knowledge.

Q. You were present when they were shifting the cargo from the forward part of the vessel to the after? A. Yes.

Q. And they shifted the cargo to the between decks of No. 1? A. Yes.

Q. The cargo of sardines? A. Some sardines and the cork.

Q. Cork was shifted? A. Cork was shifted.

1194 Q. Shifted all the cork aft that was not wet? A. Yes.

Q. And if the cork was wet they decided to leave that there? A. Yes.

Q. Why was that? A. I couldn't say.

Q. Who had the say as to that, did you direct the man in shifting the cargo? A. No, we had nothing to do with that, the surveyor told the stevedores, under the direction of the surveyor.

Q. You went down into the hold and looked at the cargo? A. Yes, as far as I could see by the side of the ladder.

Q. Where was the water? A. The water would 1195
be about I should say about six feet below the between decks, then, the ship coming up.

Q. When did you go down, was that while they were shifting cargo? A. That was after they had shifted a lot of it.

Q. It was during the shifting? A. During the shifting, they had not quite finished.

Q. Had they put the ballast on yet—this was before they put the ballast on? A. Just started putting the ballast on.

Q. At that time you could look down between the bales of cork and see the water? A. And 1196
see the water.

Q. Could see certain of the casks? A. They had all been wet because the cork above was wet as well.

Q. They were wet but out of water at that time? A. Out of water at that time.

Q. Did you estimate how much of the barrel was out of the water, or how many were out? A. I couldn't tell you.

Q. Did you see the entire barrel? A. No, just see the side of the barrel, some of the cork on top of the barrel, I could see down.

Q. But the water was below the cork and below 1197
the level of the top of the barrel? A. Below the level of the top of the barrel.

Q. You say that the cargo might have been removed by a diver, do you know whether that was considered or not? A. That I could not say.

Q. You didn't make any recommendations to anyone to that effect? A. No.

Q. You said the cargo had white dust over it? A. Might have been the roads.

Q. Could white dust have come off the road

1198 like that? A. Yes, very white dusty roads there.

Q. I think you mentioned it was impossible to unload the lime at New York from the drydock, is that right? A. Well, I shouldn't think it would be practicable to do it.

Q. You mean impracticable, not impossible? A. No, it could have been done, they took some of the barrels out of the hold so they could get at the work, and they put it on the deck.

Q. Do you know why they didn't take it all out? A. Because they didn't have time.

Q. Just put them up on the deck, took all out that was necessary to make repairs? A. Neces-

1199 sary to make repairs, that was just landed on the deck and to be put into the other holds.

Q. Who did this, the repair men themselves? A. No, the stevedores did it.

Q. The stevedores did it at the drydock? A. At the drydock.

Q. Under orders of the repairmen? A. I don't know whose orders it was, but it was done.

Q. You don't know who superintended the work? A. No.

Q. Were any of the officers present? A. Yes, all of us present.

1200 Q. But you didn't superintend the stevedores? A. No, didn't superintend the stevedores, they have their orders from someone.

Q. You don't know who it was? A. No.

Re-direct examination by Mr. Sprague:

Q. Did you hear any fog signals before the stranding? A. Never heard any.

Q. Or after? A. Never heard any before but there were some heard afterwards, a good time afterwards.

Q. How long afterwards? A. 12 to 13 hours. 1201

Q. That was after you started steaming? A. After we started steaming, heard the *Canso* fog signal.

Q. Did you finally get your position from *Canso*? A. Yes.

Q. Where did you eventually find you were? A. Found she was to the southward of eastward of *Canso*, 5½ miles S.E. of Gannet Rock.

Q. The log I beleive states it was 7 miles off Gannet Rock, are you right or the log? A. By the bearings we took after it cleared up, might have have been more, might have been less, at the time she shifted once or twice trying to get away. 1202

Q. That may account for the difference? A. That may account for the difference.

Q. When you looked down in hold No. 1 at Halifax you say you saw the water down the side of the barrel?

Mr. Loughran: Objected to as leading, let the witness testify what he observed, it is not for counsel to state what he observed.

Q. How far up on the side of the barrel was it? A. I could just see the one barrel, about quarter of the way up on that barrel, that was the top of the barrels. 1203

Q. When these casks were brought on board did you observe any openings between the staves?

Mr. Loughran: Objected to as leading, the witness did state what he observed, counsel should not state suggestions to the witness.

1204 A. No, I didn't notice any between the staves at all.

Q. Would it have been possible to have brought all the barrels up on the deck of the steamer at the time she was in drydock, in your opinion?

Mr. Loughran: Objected to, the witness is not qualified to answer.

A. Well, it could have been done.

Q. Would it have affected the stability of the ship in any way?

1205 Mr. Loughran: Objected to as leading.

A. Might have done.

Q. In your opinion would it have? A. Well, I couldn't say for certain what it might have done, it might have altered the weight on the pontoon and therefore affected the rig of the ship as she was placed on the docks.

Q. As an officer of this ship would you have thought this a wise thing to do? A. No, I should not.

1206 *Re-cross examination by Mr. Potter*:

Q. You didn't give it any particular consideration at that time, did you? A. No.

Q. At the time she struck I understood you to testify on your direct examination that you were asleep? A. Yes.

Q. You don't know what fog signals might have been heard? No, after I left the——

Q. Certainly while you were asleep you could not be conscious of any fog signals? A. No.

Re-re-direct examination by Mr. Sprague: 1207

Q. You didn't hear any on the bridge during your watch? A. No.

Q. You didn't hear any after you came on deck after the stranding?

Mr. Loughran: Objected to as leading.

Q. Did you hear any? A. I didn't hear any after I came out, after she struck, but later on when the weather cleared off.

Q. You said that was about 12 hours later? A. About 12 hours later. 1208

Adjourned to October 9 at 9:30 A. M.

New York, October 9, 1920.

Met pursuant to adjournment.

Present:—Mr. Sprague, Mr. Potter, Mr. Loughran and Mr. Single.

James Beeby, recalled: 1209

By Mr. Sprague:

Q. Have you got the measurements of your ship? All the details of the ship.

Q. Will you state what her length is? A. 427 feet.

Q. Is that between perpendiculars? A. 410.5½ between perpendiculars.

Q. The other is over all? A. Over all.

1210 Q. Breadth? A. 54 feet.

Q. Her depth? A. To the floor?

Q. Yes? A. 27.5.

Q. Molded? A. 29.9.

Q. What is her registered tonnage? A. 4,173.40.

Q. Gross tonnage? A. 5,757.8.

Q. Her deadweight? A. I haven't that.

Q. Are there any other particulars you have of the ship there? A. Freeboard, draft.

Q. Give her freeboard? A. Her freeboard is 5 feet 11½.

Q. That is when loaded to mark? A. When
1211 loaded to mark.

Q. What is her draft? A. Indian summer 24.9, winter North Atlantic 23.8, summer North Atlantic 24.2½.

Q. Any further particulars there? A. Loading to the inch, 46 tons to the inch, I think that is about all.

Q. A question was asked you yesterday about your compass observations immediately preceding and following the stranding; you stated that you did not recall but you had them in your compass observation book; have you brought your book with you today? A. Yes.

1212 Q. Is this the book (handing witness book)? A. Yes.

Q. Will you look at it and state whether that is the page on which the record appears immediately preceding and following the stranding? A. Yes, that is the page.

By Mr. Loughran:

Q. Did you keep the book? A. The officers take observations, that book is kept by the second officer.

Q. The officers report to the second officer? A. 1213
It is kept in a scrap book, there might be six observations in a day, they all amount to the same so we only take two and enter them.

Q. You say these are the entries made from day to day as the observations are made? A. They are copied from the scrap.

Q. This is the smooth record? A. Yes, as for instance joining the ship I should look through that book, I would not trouble, the scrap, I would look through that to see how the dates are, that goes back into another voyage.

Q. Have you the scrap on which this is based? 1214
A. I have.

Q. Did you bring the other scrap logs this morning? A. No, I couldn't find it, I am making inquiries.

Mr. Sprague: I am having inquiries made and will produce them if they can be found.

Mr. Loughran: At the same time I request to have the scrap log for the compass directions.

Mr. Sprague: I offer in evidence these two pages of the compass observation book of the *War Convoy,* renamed *Willdomino,* 1215
covering the period from July 17 to July 26, 1920, and ask for the privilege of substituting photographic copies, so the captain can take it back to the ship.

Mr. Loughran: I object to its being received in evidence, I have no objection to its being marked for identification, except generally.

(The pages are marked Claimant's Exhibit L.)

1216 *By Mr. Sprague*:

Q. Having looked at this book, is your recollection the same as it was yesterday in regard to those compass bearings? A. Yes.

Q. You had tested it the previous day and found it correct? A. Yes.

Q. You were asked yesterday about cables or wireless messages, which you sent to your owners, you stated you sent one before you reached North Sydney and you were asked to produce it; I ask that you do produce it and if that is the message you sent (handing witness paper)? A. Yes.

1217

Mr. Sprague: I offer the message in evidence.

(It is marked Claimant's Exhibit M.)

Q. You stated in your examination yesterday that you received a message from the owners just before you arrived at Sydney, you were asked to produce that, I ask if this is the message you received (handing witness paper)? A. This is the actual message.

1218 *By Mr. Loughran*:

Q. There is no date on this, is there? A. Yes, sir; I received it at 8:45 P. M., sent—I don't see any date on that.

By Mr. Sprague:

Q. Is this the wireless operator's copy (handing witness paper)? A. Yes.

Q. That does give a date, doesn't it? A. Yes.

Mr. Loughran: Providing the proper 1219
date is established we have no objection to its admission in evidence.

Mr. Sprague: I am quite willing to offer this copy of the wireless operator's message he kept.

Mr. Loughran: That will be satisfactory.

Mr. Sprague: Subject to proving that this is correct by the wireless man, I offer this to be marked for identification.

(It is marked Claimant's Exhibit N for Identification.)

1220

Q. After receiving that message you sent a wireless to your owner? A. Yes.

Q. Is this a copy of the wireless message you sent (handing witness paper)? A. That is it.

Mr. Sprague: I offer the message in evidence.

(It is marked Claimant's Exhibit O.)

Q. On the evening of the 23rd, about the time that the fog came down did you send a message announcing your position to your owners? 1221
A. The usual message we sent at 8 P. M. every night during the voyage while at sea.

Q. You sent one that night, did you? A. I did.

Q. Is that the message (handing witness paper)? A. Yes.

By Mr. Loughran:

Q. Just describe the process that is gone through when you want to send a radio? A. I

1222 send for the wireless man to my cabin, write the message out and give it to him.

Q. Just one, or do you keep a carbon copy? A. No.

Q. On any scrap of paper you have handy? A. A memorandum book I have in my room.

Q. What is he supposed to do? A. Take that away with him to the wireless cabin.

Q. After it is sent what is done? A. It is kept.

Q. Put on file? A. No, he tells me whether he had a receipt for the message, often enough he
1223 cannot get the message through, may have to wait half a day or a day before we can get in touch with the wireless station, or another ship to pass it on to the wireless station.

Q. I mean this piece of paper, has he a spindle on his desk on which it is kept? A. He has a log book.

Q. Does he kept it in a log book? A. A scrap.

Q. Just throws it in between the pages? A. All sorts of things, yarns, anything at all he thinks will interest us on a steamer.

Q. What are all these initials on the bottom, X Y D E? A. That is the call numbers—no, I
1224 guess that is the wireless man, I could not tell you that, I have a hazy idea, but I could not explain it.

Q. Is this in your handwriting? A. No.

Q. You didn't write this? A. No.

Q. Who did? A. The wireless man.

Q. Where? A. That is a copy, he must have it in his log book, a copy of the message I sent.

Q. When did he write it? A. I don't know.

Q. How do you know he wrote it? A. It is his handwriting.

Q. You recognize his writing? A. Yes. 1225

Q. Do you know where the originals are that you wrote out? A. No.

Q. What becomes of those generally? A. The wireless man scraps them.

Q. Destroys them? A. Yes, they are no further use once he received an O. K. from the other station, saying they received them.

Q. Where do you get that? A. From the log book.

By Mr. Sprague:

Q. You got this from the wireless man? A. 1226
Yes.

By Mr. Loughran:

Q. Then you don't know anything about these particular pieces of paper? A. No, outside that they are given me by the wireless man, he keeps all the messages I send.

Mr. Loughran: I object to their admission in evidence generally.

By Mr. Sprague: 1227

Q. Do you recognize this as being the contents of the actual message sent? A. Yes.

(The copy of the message is marked Claimant's Exhibit P for identification.)

Q. What is this white paper (handing witness paper); is this by any means your message? A. That is my message.

1228 Q. Covered by this, that is in your handwriting? A. Yes, in my handwriting.

Q. Is this your handwriting I have here? A. No, I give it in figures, the message must be sent in words.

Q. That is your writing, covering the Claimant's Exhibit P for identification? A. My writing.

By Mr. Loughran:

Q. This is the same we were talking about last? A. That is the actual thing.

1229 Q. Is this all in your handwriting, do you say, or just the back? A. Just the back, the figures on the other side is mine (indicating on back of message).

Mr. Sprague: I offer the message in evidence.

(It is marked Claimant's Exhibit Q.)

By Mr. Sprague:

Q. Showing you Claimant's Exhibit M for identification, I ask you if the word Gueret Jacks

1230 is a code word, and if so, what it refers to? A. No, it meant Pickford & Black, a mistake in transmission from the wireless station.

Q. It is a mistake in transmission? A. Yes.

Q. There is no code word there at all? A. No.

Cross examination by Mr. Loughran:

Q. Did you bring your scrap logs with you? A. No, I couldn't get them.

Q. How long did you look for them? A. I 1231
inquired about them all last night from the other officers; the officers usually hang on to them, the chief officer doesn't know where he put them.

Q. Did you ask all the men where they had seen them last? A. Yes.

Q. What did they say? A. The chief officer is not sure where he put it, he is working another one while in port. I have the details I wanted from yesterday, in regard to the drydock.

Q. When did you see this scrap log last? A. On the bridge coming into New York.

Q. You brought your port notes, did you? A. 1232
The movement of the steamer from wharf to drydock, the time she went on the drydock and came out.

Q. Where does that pick up, where does it start after she was berthed? A. August 25th, drydocking.

Q. That does not start until August 25th? A. No, these are the details you required yesterday regarding drydocking.

Mr. Loughran: In response to some inquiries for the movement of the vessel after arriving, the captain said after coming 1233
into port he discontinued his log but continued with port notes.

Mr. Sprague: The log finished August 24th, through the discharging.

Q. Are these the notes that you kept? A. That note I got from the chief officer last night.

Q. Whose handwriting is that in? A. The chief officer's, the signature on the bottom.

1234 Q. Where did you get it? A. Last night from the chief officer.

Q. Where did the chief officer get it? A. Details from his harbor notes.

Q. Where are his harbor notes? A. On the boat.

Q. Why didn't you bring those? A. I understood you were only interested in the drydocking.

Q. No, I wanted the whole harbor notes; I would like to have all your records of the prosecution of the voyage, also the movements of the vessel after she came into port in the original form in which it was kept, not copies of them;

1235 will you try to get these? A. I will.

Q. Yesterday you did not have any record of speed and runs of the vessel, and the amount of coal, I understood, and the results of consultations you had with the engineer regarding the necessity for putting on a certain amount of coal for the run you had to make; have you any records of that sort? A. No—runs of the vessel?

Q. How large a run a day the vessel made, are those in the log? A. In the log, mileage she makes per day.

1236 Q. I ask you to refer to this record of the voyage from Messina to Lisbon and ask you to read from the record of the smooth log the mileage you made on each day, starting with your departure from Messina? A. From June 11th to June 12th, 183 miles.

Q. Just the date and the mileage? A. 12-13, 226 miles; 13-14, 210 miles; 14-15, 200 miles; 15-16, 195 miles; 16-17, 180 miles; 17-18, 178 miles; 18-19, 127 miles; 19th, in port at Lisbon; we had a day in Gibraltar and start the next day.

Q. The 19th you landed in Lisbon? A. The last run was 127 miles. 1237

Q. You didn't take on any coal at Lisbon? A. No.

Q. After leaving Lisbon, give the date and the run per day? A. On June 24-25, 87 miles; 25-26, 201 miles; 26-27, 128 miles; 27-28, 189 miles; 28-29, 174 miles; 29-30, struck, drifted 24 miles; on the 30th to July 1st, drifted 39 miles, from July 1-2, drifted 26 miles; from the 2-3, no drift; from the 3-4, he has not put the distance from the breakdown to St Michaels.

Q. That is from what date until what date? A. From July 2nd to July 3rd. 1238

Q. Is your position on July 2nd reported there? A. 25 N., 24:43 W.

Q. That brings you up to St. Michaels? A. Yes.

Q. Were you running most of that time on the low pressure turbine? A. Only the last day.

Q. The rest of the time? A. Under normal conditions.

Q. But you ran one day on low pressure turbine, did you? A. Yes.

Q. What mileage did you make that day? A. By log 7½ average. 1239

Q. Averaged 7½ knots? A. Yes, 7½ knots.

Q. How many miles did you cover in that day? A. He has missed entering that up.

Q. Will you tell me where you went from and where to, on the low pressure at 7½ knots? A. From the position just given to St. Michaels.

By Mr. Sprague:

Q. How many hours? A. 24 hours.

1240 *By Mr. Loughran:*

Q. You know what your average speed was on the westbound voyage on both low pressure and high pressure turbines? A. 8.09.

Q. Have you any record of the amount of coal you burned? A. That will be in the engineer's statement.

Q. You have not any record? A. No.

Q. Have you in your possession the logs of the ship on the two previous voyages? A. No.

Q. Who has those? A. I should say they would be in the office

1241 Q. Office of the owners? A. Yes.

Mr. Loughran: I ask that they be produced at these hearings.

By Mr. Sprague:

Q. This Exhibit E-1 contains the record of your run from Norfolk to Marseilles, does it not, on your eastbound voyage? A. Yes.

By Mr. Loughran:

1242 Q. On your voyage going over, you didn't have any engine trouble at all, did you, captain? A. Boiler trouble.

Q. On this voyage coming over, was your radio in good working condition all the time? A. Yes.

Q. So that you were in constant touch with your owners the whole voyage if you wanted to be, weren't you? A. No, there were several days when we and numerous other ships could not get in touch with shore stations, owing to atmospheric conditions.

Q. Aside from those days, could you make good radio connection? A. Good connection, yes. 1243

Q. How many of those days; were those a few days when atmospheric conditions interfered? A. The wireless man can tell you.

Re-direct examination by Mr. Sprague:

Q. June 24th-25th, you were just leaving Lisbon and made 87 miles, was that a full day? A. Part of day.

Q. Do you know how many hours? A. 14 hours.

Q. About the 28th-29th, you made 174 miles, is that a full day? A. A full day. 1244

Q. You computed the distance, I suppose, between the point of the breakdown where you have already given your position, and Ponta Delgada? A. Yes.

Q. And determined the actual mileage covered? A. Yes.

Q. You know the time it took, your log states that? A. Yes.

BART HANISWORTH, being duly sworn and examined as a witness for claimant, testifies as follows: 1245

Direct examination by Mr. Sprague:

Q. You are the Marconi operator on the *Willdomino*? A. Yes.

Q. How long have you been on this ship? A. 15 months, about.

Q. That is when she first went into service, isn't it? A. Well, that was just about; I joined

1246 her in Cardiff; I think she had been on six months; I am not sure about that.

Q. That is before she went to Hamburg? A. No, I went with her to Hamburg.

Q. That was on her first voyage with cargo? A. I think she came over from Vancouver to England. I joined her in Cardiff. I don't know much about her before I joined her.

Q. Did you send certain messages for the captain of the ship to the owners and others on this voyage between Messina and New York, which you completed in August? A. The usual thing
1247 I do every night is to send the ship's position about 8 o'clock.

Q. Did you do that every night? A. Every night when I am in touch with shore stations.

Q. What is the reach of your radio? A. 2,000 miles.

Q. Can you send messages that distance? A. You can under good conditions.

Q. Did you have good conditions for the sending of messages throughout this voyage? A. Yes, this last trip, good results.

Q. Able to send all the time? A. Able to send except at different times when I was not in touch
1248 with the stations for the simple reason, you see, some of these shore stations, they haven't the range, they might hear me, but I couldn't hear them.

Q. Was there any time when you were unable to communicate on this voyage? A. Well, yes, I was in touch with Palermo for some time on that side, and then of course I was out of touch until I finally picked up Cape Race and Arlington; that is the station that sends out all the time signals and the wireless press.

Q. Have you any record to show how long you 1249
were out of touch with shore stations,—what is the book you are referring to now? A. This is the log.

Q. Marconi log? A. My log; I am not with the Marconi Company; it is a private company.

Q. You keep this log yourself? A. Just for my own reference. I would be out of touch with stations about 4 days altogether.

Q. Was that when you were in the middle of the Atlantic? A. That was in the middle, the first station I picked up is Cape Race.

Q. Can you state when you picked up Cape 1250
Race? A. I don't remember the date at all, July 12th, or something like that, I think.

Q. In addition to sending out notes of your position each night at 8 o'clock, as I understand you to say you did, you sent certain messages to the owners of the ship for the master? A. Yes, every night I sent 5 positions on different dates, every night at 8 o'clock, for 5 days, before we came abeam of Cape Race; I sent a message out at 8 o'clock every night.

Q. Did you also send out a message to the owners for the captain on July 21st, and if so, is that a copy of the message (handing witness 1251
paper)? A. No, that is not the one; the first message I sent as regards going to Sydney or anywhere like that to latitude 42:53 N., longitude 47:57 W.

Q. When was that sent? A. Sent on the 18th.

Q. Of July? A. Sent at 7:25 G M T, and I got the receipt from Cape Race in about a minute after it was sent.

Q. That was transmitted to Cape Race? A. Transmitted to Cape Race.

1252 Q. By G M T you mean Greenwich Mean Time? A. Greenwich Mean Time.

By Mr. Loughran:

Q. Do you remember sending that out of your mind, the exact time and date? A. The exact time and date, the 18th, 7:25 it was sent out.

Q. Whose is that memorandum you are looking at now, Claimant's Exhibit N? A. My own.

Q. That is your handwriting? A. Yes.

Q. What did you get that from, what did you copy it from? A. You see the captain gave me a
1253 copy and I copied it down for my file.

Q. Where is the copy the captain gave you? A. Destroyed.

By Mr. Sprague:

Q. Is this the copy you made? A. Exact copy sent to Cape Race.

Q. When did you make that? A. At once, I made the message from the captain.

Q. Before you sent the message? A. Yes, the captain simply puts the longitude and latitude on the message and he puts headed north in
1254 figures; of course the wireless operator has always to make an official wireless message out of it, the captain does not understand how that should be.

Q. This is the official message? A. This is the official message, yes.

By Mr. Loughran:

Q. Are you in the habit of destroying the originals the captain gives you and make a copy? A. I make a copy and then I put it on the file

for myself and if the captain wants it I give it back. 1255

Q. You destroy the originals? A. Yes, the mate always brings it up to the captain but he simply has it in figures, the latitude and longitude.

Q. Then you throw it away? A. Burn them.

Q. You do that with all your records? A. All my records, always make a copy of them.

Q. What do you do with the copies? A. Keep them in the wireless file for reference.

Q. What kind of a file? A. Just an ordinary file.

Q. Just a spindle? A. Clip. 1256

By Mr. Sprague:

Q. After you had sent this message which the stenographer has marked Claimant's Exhibit M, did you receive a message from the owners of the vessel? A. I received a message when we were proceeding to North Sydney from Williams Steamship Company informing us to proceed to Halifax.

Q. I show you Claimant's Exhibit N for identification and ask if that is the message you received? A. Sure. 1257

Q. Is that the original? A. That is the exact thing I received, I gave the captain another copy.

Q. And you kept this? A. And I kept this as I received it.

Q. And that is the original? A. That is the exact thing.

Mr. Sprague: I offer the message in evidence.

(It is marked Claimant's Exhibit N.)

1258 The Witness: That message there should read to Commander *S. S. Willdomino*, Sable Island, formerly War Convoy now off Sydney proceed Halifax report—the thing that came out Gueret Jacks, but it should read Pickford & Black Company—for bunkers, Willshipco.

Q. How did you ascertain that those two words meant Pickford & Black? A. There was a query about that, they were going to correct that afterwards but we got into port all right.

1259 Q. You ascertained later what it was? A. That it should be Pickford & Black.

Q. On this Claimant's Exhibit N, I notice the time received is 12:23? A. G M T A. M.

Q. Is that the time you received the message on board your ship? A. Yes.

Q. And that is Greenwich Mean Time? A. Yes.

Q. About what correction do you give that for ship's time? A. Well there is 5 hours' difference, I think that was about 8 o'clock,—that is P. M., 8 o'clock at night that was received.

1260 *By Mr. Loughran*:

Q. Is this the paper you scribbled the message down on when it was received, you have the blank in front of you? A. Always have them with carbon underneath so you have one to give the captain and the other for yourself.

Q. And you didn't have the message in any other form when received? A. No, just like it is there.

Q. Is this the usual kind of form you have to

receive these messages on board? A. I ran short of forms so have to use anything I have there. 1261

Q. Your instrument has nothing to do with the Marconi Company, has it? A. Of course the Williams Steamship Company they bought the instruments and they pay me my salary, but sometimes they come on board to have an inspection, if I want it, it just depends on the crew you have, always coming into New York always have an inspector on board to see everything is all right.

Q. Is that the Marconi Company? A. An American Marconi, of course we have the American. 1262

By Mr. Sprague:

Q. What is your log for, don't you put the messages down on the log? A. That is just whoever wants the message.

Q. If you want to put them down? A. To make the log you put the call signs of the ship and message sent or message received.

Q. Have you any entry in the log of this message received? A. Yes.

Q. Dated July 21? A. Yes, 12:23, give Sable Island receipt for message and No. 1 check, O. K. 1263

Q. You haven't any entry in your log of the address on this message? A. At 11:22 G M T, I am in touch with North Sydney shore station, I ask if there is anything for *Willdomino*, he replies Q R U, which means nothing for you; at 11:22 they ask me if I am the *War Convoy;* of course her name has been changed from the *War Convoy* to the *Willdomino;* I send back yes, now the *Willdomino*, have you anything for us; he answers

1264 hold your telephones for message for you; after that I have the message and get the receipt from it.

By Mr. Loughran:

Q. You are reading from your memorandum? A. Yes, in the log.

By Mr. Sprague:

Q. Have you a record in your log of the address that was on this message, the person to whom it was addressed and the point where she was ex-
1265 pected to be found? A. That is on the official message, you only put the call signs of the message received or message sent in the log, there is no need to put that down in the log, the whole thing, just as you have got it how I send it.

By Mr. Sprague:

Q. Did the master give you a message to send in reply to this message that you have just received from the owners of the *Willdomino?* A. Yes, you have it there.

Q. I show you this paper and ask you what it
1266 is? A. That is the one I sent, 80 bunkers remaining, then the station is given, the 21st, Captain.

Q. You are now referring to Claimant's Exhibit O? A. Yes.

Q. What is this Claimant's Exhibit O, is that in your writing? A. In my writing, yes.

Q. When did you write that? A. That is what I wrote out when I got the message.

Q. When you sent the message? A. When I sent the message rather.

Q. This is the original paper? A. That is the 1267
original thing.

Q. And you kept that in your files the same as you have described for the others? A. You can see that is the thing sent, receipt O. K.

Q. Those letters on the bottom are the code letters? A. Call signs of the ship and shore station.

Q. Meaning that was received O. K.? A. Yes, I sent back to North Sydney shore station V C O, the call sign is, he gave me a receipt for it O. K.

Q. What are these letters in the upper right-hand corner? A. 135 G M T, O. K., that is O. K. 1268
sent.

Q. Is that the time, 1:35? A. Yes.

Q. A. M. or P. M.? A. That would be A. M., but it would be P. M. by the ship's time.

Q. 1:35 A. M. G M T, that is the time it was sent, was it? A. Yes.

Q. Did you send out a message at 8 o'clock on the 23rd of July to the owners of the ship showing the position of the ship, and if so is that the message (handing witness paper)? A. Received in Halifax, yes, that is the one, 12:50 G M T sent to Willshipco, New York, latitude 45:50 N, longtitude 59:47 W, proceed to Halifax, Captain. 1269
That was sent to North Sydney shore station and the receipt was given at 12:50 G M T.

Q. Those are the letters you have at the upper righthand corner? A. Sure.

Q. And these letters at the bottom are what? A. That is the receipt from the shore station to X Y Z, giving the receipt for the message O. K.

Q. And those letters show the call? A. Call signs.

1270 Mr. Sprague: I offer the message in evidence.

(It is marked Claimant's Exhibit P.)

Q. I now show you Claimant's Exhibit O and ask you if you recognize that? A. Look, I can explain to you, that is the captain's writing when he sends it to the wireless and that is the copy I make (indicating).

Q. Claimant's Exhibit O is the captain's message sent up to you? A. That I copied.

Q. And P is your message you copied out and
1271 sent? A. Yes.

Q. On the other side of Claimant's Exhibit O seems to be a duplicate of Exhibit P? A. Yes.

Q. Did you make this copy on the opposite side of Claimant's Exhibit O? A. Yes.

Q. What was that, a carbon copy or what? A. No, I simply turned it over and made it out.

Q. What did you do with this? A. Just kept it on the file.

Q. Were you in your cabin at the time the vessel struck? A. Yes.

Q. Had you been out on deck during the night?
A. The only time I went out on deck is the usual
1272 thing to go to the bridge and ask for the third officer to come down and take the wireless time signals from Arlington.

Q. You receive that about what time each night? A. I received that at 3 o'clock G M T, that is 10 o'clock ship's time.

Q. Were you on the bridge at 10 o'clock the night of the 23rd? A. Five minutes to ten.

Q. Did you observe the character of the weather then? A. Yes, foggy.

Q. Who was on the bridge at the time? A. I

believe the captain and the third officer were there. 1273

Q. Then what did you do after taking the Arlington's call? A. The third officer took the time signal and then he went back onto the bridge and after that I took the wireless press and then of course I was making copies out for the engineers and the different people on board after that and listening in for signals.

Q. When did you go to your cabin? A. I am in my cabin all the time.

Q. When did you go to sleep? A. About—I forget what time I turned in that night.

Q. Were you asleep when the boat struck? 1274
A. No, not asleep.

Q. Did you feel the shock of the stranding? A. Yes.

Q. Was it much of a shock? A. No, it was just simply like a heavy sea hitting her.

Q. What did you do? A. Well, I didn't do anything because I didn't think anything had happened at all, the first thing I knew the mate came up to the wireless cabin and he said you had better get things going, he said, we are in distress.

Q. Did you get things going? A. Sure, I went straight up to the bridge and asked the captain if he wanted to send an SOS out. 1275

Q. What did he say? A. Just wait a moment and I will give you the position.

Q. Did he give you the position? A. He gave me the position right away.

Q. Then what did you do? A. I went right into the wireless cabin and started the wireless instruments up and sent the message.

Q. SOS signal? A. SOS signal.

1276 Q. That is addressed to all ships and wireless stations? A. Yes.

Q. Have you a memorandum of that in your log book? A. Yes, at 11:02 a. m. to all ships, I am *S. S. Willdomino,* Lat. 45:10 N., Long. 60:45 W., struck obstruction, hole in fore peak, Beeby.

Q. G M T also, is it, when you say 11:02? A. 11:02, 11:04 and 11:06, and then on and off after that I kept sending distress signals.

Q. That is G M T, is it? A. Yes.

Q. Did you get any answers to that call? A. Yes, the first reply I got was from Canso shore station.

1277 Q. Did you get any other replies? A. From about 3 or 4 ships, asking if we wanted any assistance.

Q. What reply did you make to them? A. I reported the matter to the bridge and the captain told me he didn't want any assistance at all so I simply replied back to them we didn't want assistance, we would inform them later what we were going to do.

Q. Did you send any further messages before you arrived at Halifax? A. Yes, I sent several through Canso about different things concerning

1278 the ship which they were asking, if we wanted a tug sent to our assistance; they sent a tug out at the captain's request and they could not find us in the thick fog.

Q. That was the *Lady Laurier*? A. No, not the *Lady Laurier.*

Q. Another tug? A. Another tug.

Q. The *Lady Laurier*—— A. The *Lady Laurier* came later, and then the Canso wireless station asked if we wanted the tug sent out again and the captain replied he didn't want it sent out.

Q. Byt that time had the *Lady Laurier* arrived? 1279
A. No, after that I sent a message to Halifax to Pickford & Black asking for a tug to be sent out, they replied that the *Lady Laurier* was somewhere in the vicinity, giving me her call signs, V D F, and asked me if I would please pick him up by wireless. I tried to pick her up so of course I kept in touch with Canso and giving at different intervals the call sign of the *Lady Laurier* until I finally picked her up.

Q. And the *Lady Laurier* finally responded and came to you? A. And the *Lady Laurier* finally picked me up and came to our assistance. 1280

Q. Have you any other messages that were sent during that time? A. I have them on board the ship, but there was only a message sent for the tug to Pickford & Black, they sent us back that the *Lady Laurier* was coming to our assistance.

Q. Did you send any messages to the owners other than the ones you have presented? A. Only through Pickford & Black, the captain came to the conclusion that Pickford & Black would do all the business concerning the ship and I was too busy with Canso station and the *Lady Laurier* trying to pick her up instead of just sending an 1281
ordinary message when I got all the information from Pickford & Black.

Q. Of course you were busy all this time with the wireless, you were not on deck? A. I was on watch all the time from striking the rock until coming in, two days.

Q. Right at your instruments all the time? A. Night and day until she finally arrived in Halifax.

1282 *Cross examination by Mr. Loughran*:

Q. These messages the captain wants sent, do you keep any log of those, or do you just copy them on a loose sheet? A. Copy them on a loose sheet.

Q. And it is customary for you to keep this message the captain sends on another loose sheet and then destroy the original? A. Well, it just depends, sometimes I keep them and sometimes I don't because he never wants them, it is no use having loose papers.

1283 Q. It is no use keeping two loose papers, so you destroy the original? A. I ask if he wants it and he says no, so I only keep the copy in my own writing because if there is a query about the message you can trace it through the station.

By Mr. Sprague:

Q. That is your personal log? A. Yes.

Q. You are not required to keep it at all? A. No, it is only for reference in case anything like this comes up I can give anyone any information they want.

Adjourned to October 16, at 10 a. m.

1284

New York, October 16, 1920. 10 A. M.

Met pursuant to adjournment.

Present Mr. Sprague, Mr. Loughran and Mr. Single.

Counsel for claimant produces the port scrap log as requested by counsel for libelants at the last hearing.

R. G. DONALDSON, being duly sworn and examined as a witness for claimant, testifies as follows: 1285

By Mr. Sprague:

Q. Were you chief engineer on the *Willdomino* on her voyage from Messina to New York ending in New York in August, 1920? A. Yes.

Q. How long had you been chief engineer on the *Willdomino?* A. 13 months.

Q. You joined on this vessel at Cardiff, did you? A. At Cardiff on July 3.

Q. And that was when she was carrying a cargo of foodstuffs for Swift & Company to Hamburg? A. Yes. 1286

Q. On her maiden voyage? A. Her maiden voyage from Boston to Hamburg.

Q. And you joined on as chief engineer at that time? A. I joined as chief engineer at Cardiff at that time.

Q. And you have been chief engineer ever since that time? A. Yes.

Q. How old are you? A. 32.

Q. How long have you been going to sea? A. 9½ years.

Q. Have you been in the engineroom of steamships during that entire period of time? A. 1287 Yes.

Q. How long have you been a chief engineer of steamships? A. This one I was 13 months, and one previously in 1914 and 1915 for a period of just close on 9 months to 12 months, somewhere around that.

Q. So you have been chief engineer for approximately two years? A. Just over two years.

Q. Before you were chief engineer were you first assistant engineer? A. Yes, that is what

1288 is called a second engineer on British ships, I was second engineer.

Q. For how long? A. Just close on 6 years, 5½ years.

Q. With what companies were you second engineer? A. With the Elder Dempsters of Liverpool and West Hampton Roads with Blacks, I forget the initials, of Glasgow, and under the Government on Government Transport for the H. W. G. Condor, she was formerly German.

Q. That was during the war? A. That was during the war, that was for Chadwicks of Liver-

1289 pool.

Q. Prior to the time you were second were you third engineer? A. I was third engineer with Elder Dempster when I was promoted.

Q. For how long a period of time? A. It was one or two years, my discharge gives the exact dates, and I expected the captain to bring it up or leave it up at the office but he has not done it.

Q. That would enable you to fix the dates more exactly? A. Yes, it is really necessary because you can't remember every date that you were signed on or off and when promoted from second to chief and third to second.

1290 Q. You are giving it as near as you can from your recollection? A. Yes.

Q. When you first went to sea on these vessels did you go on as third or fourth? A. Fourth, yes.

Q. How long were you on as fourth, approximately? A. Around 18 months.

Q. What training did you have on shore before you joined the engineroom force of a British ship? A. I commenced serving apprenticeship when I was 14, finished when I was 21, that is just 6 years; and 9 months apprenticeship on

engines of all kinds, at Fleetwood, Lancashire, 1291
by the firm of J. Robertson Limited, engineers and shipbuilders.

Q. What did that apprenticeship cover, entirely shop work? A. First of all machines, approximately for 12 months, and then the remainder was repair and building all over reciprocating engines, pumps of all descriptions, paddle wheels; of course turbines were not known then, just commencing.

Q. After you had served your apprenticeship you served as what? A. After apprenticeship I was 21; I continued in the firm for somewhere about 18 months as journeyman; of course your 1292
pay increases from 10 shillings, or $2.50 to about $7.00 a week.

Q. As journeyman? A. Yes, I was that for about 18 months, then I went to sea. Of course when you finish your time you look for a ship. In Liverpool, you give your testimonials to all these firms, the superintendent engineer examines you, looks at your papers to see if you have served your time first; if he thinks you are qualified he gives you a position.

Q. You are at present chief engineer? A. I have a chief engineer's certificate. 1293

Q. How long have you held that certificate? A. I can tell you the exact date (handing Mr. Sprague paper); that must be produced before you can sign on any ship.

Q. This is dated April 17, 1915? A. Yes, sir, that was when I got my first chief engineer's job, the dates aren't quite exact, what I am guessing you see; the second engineer's certificate is white with blue printing on; before you can get a second engineer's certificate you must be 12 months in charge of a watch; before you can

1294 get a chief engineer's you must be 18 months in charge of a watch; before you can sit for examination you have to go to school about 2 months to get ready for the examination.

Mr. Sprague: The paper produced by witness is a certificate of competency as first class engineer granted to the witness by order of the Board of Trade on the 17th day of April, 1915.

Q. This of course is your paper and is very important to you to keep it? A. Yes, I would
1295 not lose that for the world.

Q. You have to have that? A. As a rule I think in an American ship you have it framed in the engineroom, you have it with you all the time, if there is any breakdown you have to have it with you or surveyors come on board.

Q. The *Willdomino* was fitted with turbines? A. Yes.

Q. Of what type? A. It was a mixed type, between Parsons & Halliday, it was Parsons license to build this turbine, of course the turbines are really Parsons, they were the originators of them, Parsons & Halliday type.
1296

Q. This turbine was built at Vancouver? A. No, not built at Vancouver, built at Spokane, Washington.

Q. Under license from Parsons? A. Under license from Parsons.

Q. Had you had any experience with the Parsons turbine before you came on the *Willdomino?* A. Yes.

Q. What experience had you had? A. I had 6 months on the Parsons turbine, a passenger steamer called the Duke of Argyle.

Q. Was that one of the Elder Dempster ships? 1297
A. No, that was belonging to Lancashire & Yorkshire Railway Company, that is running between Fleetwood and Belfast, between England and Ireland.

Q. Run across the sea? A. The Irish sea.

Q. What position did you hold in the engine-room force in that ship? A. Third engineer.

Q. You stood watch with those turbines did you? A. I stood watch.

Q. Did you have anything to do with the making of minor repairs on those turbines? A. Slight repairs, she was never opened out for any big breakdowns or anything like that. 1298

Q. Did you become well versed, acquainted with that type of engines during that time? A. Yes, part of your examination of the school is on turbines, examined on them, and before I was appointed chief engineer on this ship I was examined by 3 or 4 men belonging to Esplin & Sons, they have a bunch here, they are consulting engineers, Government Surveyors in Liverpool.

Q. You were examined by them before you went as second? A. Yes, there were 3 or 4 men sat there before they appointed me.

Q. To go back to the *Willdomino*, you took 1299
a cargo of coal, did you not, from Norfolk to the Mediterranean ports? A. A cargo of coal to Marseilles.

Q. From Marseilles you went to—— A. Palermo, Messina, Gibraltar, Lisbon.

Q. How did the turbines work on the voyage from Norfolk to Marseilles with coal? A. There was nothing, they just worked ordinary way.

Q. Did you have any trouble with them? A. No trouble, just minor defects, small oil pipes, things that are bound to happen.

1300 Q. Things that happen to every type? A. Nothing to worry about.

Q. Nothing to hold you up? A. Nothing to hold us up.

Q. What is the ordinary coal consumption on the *Willdomino* when you are using both high and low pressure turbines? A. The coal consumption varies with the types of coal; this coal we got from Norfolk, I forget the name, it is good coal, it is on an average of 42 to 43 tons a day, that is an average speed of 9½ to 9¾ knots.

Q. That is the speed of your vessel? A. She
1301 was designed, on the trial trip she went 13, of course on the trial trip everything is to get speed out of her, the bow is up in the air and the propeller submerged.

Q. You mean that is the condition on the trial trip? A. That is always the condition.

Q. During the times that you continued as chief engineer of this vessel while she was running on both high and low pressure turbines, she was making 9½ to 9¾ knots? A. At 9½ to 9¾, that is the average speed for the three voyages.

Q. You say you went from Marseilles to Pal-
1302 ermo? A. Yes.

Q. And you took on there certain cargo and then went to Messina and took on certain other cargo? A. Yes.

Q. You in your department are not acquainted with the cargo taken on at various ports at all? A. No, just what we see, what is visible to us while it is being taken on.

Q. You pay no particular attention to that, do you? A. No, that is not in my department.

Q. When you left Messina how many engineers

did you have? A. 4, 5 with myself, that is 4 engineers. 1303

Q. Yourself, a second, third, fourth and fifth? A. Yes, sir.

Q. What are the duties of the fifth engineer? A. To repair winches, look after the winches, ordinary deck engineer, really, although he is signed on as fifth, never signed on as deck.

Q. His duty is to take care of the auxiliary winches on deck? A. The auxiliary winches on deck, of course he assists in the engineroom in case of breakdown or anything like that.

Q. How many engineers are required for your vessel? A. Well, four is quite sufficient, that is not compulsory to carry five. 1304

Q. The fifth engineer is carried just for the purposes of the deck, is he? A. And to eliminate overtime, if the fifth engineer was not there, the second, third and fourth engineer would be working on deck and would be claiming overtime all the time.

Q. That is the main purpose? A. That is the main purpose, to attend to winches.

Q. You had all those engineers when you left Messina? A. Yes.

Q. What occurred in connection with these engineers before you reached Lisbon? A. In Messina the second engineer had been complaining about his heart, really it was drink, he had been drinking a lot of wine in Messina; I got onto him and I took him to the captain and he promised to reform, go about his duties; you see he was English so he shook hands. After that I had no trouble until we got to Lisbon, and then he wanted paying off and I said I would not. He had a wire his wife died, he saw the captain in Marseilles, that is what set this man on the 1305

1306 drink, so he was all right after that until he started thinking about that when he got to Lisbon, so near home; I would not pay him off because it is a job to get engineers out there. We were in Lisbon and there it would mean the delay of the ship to send any engineers out from England because passports is very bad to get through France and Spain and then Portugal. At last he said he was feeling bad, things like that, so he got a doctor's certificate saying he was sick. Well he was really sick then, because he was worrying, his heart and everything.

1307 Q. The master stated he thought the man was crazy, did you have any idea like that? A. He was because he thought we intended to take him across to the States, crazy like, having this bad news of his wife.

Q. When he got this doctor's certificate what effect did that have? A. It meant I was one engineer short.

Q. Did you have to sign him off then? A. Had to sign him off and send him home, pay his passage home.

Q. Is that one of the requirements? A. One of the requirements in a foreign port, if he is

1308 leaving through illness or sickness the ship must pay him off and he must have his passage paid to his destination.

Q. So you were forced to pay the second engineer off? A. Forced to pay the second engineer off, yes.

Q. What about the third engineer? A. The third engineer had been complaining a long time, and the heat of the engine room, the temperature was so high, sometimes reached 136, that he could not stand it, he said he thought if he continued on he would not last. Why this was, he

had been suffering from brain fever and sun- 1309
stroke in Mesapotamia, and this was a recurrence as he thought of the fever.

Q. That was a result of his war experiences, was it? A. The result of his war experience, yes.

Q. He was a soldier in the Empire? A. In the transport service on the River Tigris.

Q. What became of him? A. He was examined by the doctor and the doctor said himself if a man in this state continued on the ship he would not last.

Q. And he finally obtained a certificate from the doctor, did he? A. He obtained a certificate
of ill health and he had to be sent home. 1310

Q. You were forced to sign him off? A. Forced to sign him off, yes.

Q. What about the fifth engineer? A. The fifth engineer was a demobilized soldier, he had been wounded at the Somme and he was 9 months in a hospital, discharged as perfectly fit. Being an engineer he naturally looked for a ship to join in engineer's capacity, fully qualified, served his time, he took it from the time of signing to the time of getting—I think it was between Messina and Gibraltar, then with continual up
and down ladders, being on his feet so much, 1311
having been wounded, he was shot through the ankle, it told on him, the strain; he was laid up for 2 or 3 days, when he felt better he came out again, he couldn't put any weight on his foot.

Q. That was at Lisbon? A. At Lisbon he was paid off, he was no use, we would have to carry him as a cripple and then send him back from New York.

Q. He had a certificate from the doctor? A. A certificate from the doctor, yes.

1312 Q. So as far as the three engineers were concerned there was not any discretion left to you or the captain after they obtained the certificate? A. They were sore they couldn't continue on the ship, they are so well treated, independent of the ordinary British wage they were getting £5 bonus, that is $20 a month to do the best by the ship.

Q. As a bonus? A. As a bonus every month, £5 more than any going out of England; they were sore they couldn't stay, they had to get less money when they joined in England.

Q. What was done as far as you know personally to obtain substitutes for these engineers?
1313 A. Well we knew to keep the ship there that we would have been there about a month, if we had been there a month waiting for engineers, three weeks at least coming out, the perishable cargo would have perished, no use at all, so we decided to get qualified Portuguese engineers.

Q. Were inquiries made in Lisbon to find if you could obtain English engineers? A. Yes, naturally I asked the captain to see if any engineers had been discharged from any hospital or any English speaking engineer left from another ship, and there wasn't one in town; of course the
1314 British Consul we inquired of, he was in touch with everybody.

Q. You were informed by him? A. There was not one in the place.

Q. When did these three engineers show up with the doctor's certificates, when you first reached Lisbon or ready to sail? A. You see they didn't get their certificates until they got to Lisbon, it was after we got to Lisbon that they asked for doctors to come aboard and see them; of course if a seaman wants any doctor the captain is obliged to get him one. Of course they

stated the case in front of the doctor and the 1315
doctor hemmed and hawed and he gave them certificates, he could see it was impossible for them to carry on in the state they were.

Q. Was that just after arriving at Lisbon or just about before you were ready to sail? A. About 2 days after we arrived there.

Q. You finally signed on Portuguese engineers? A. Yes, only two, second and third.

Q. Why didn't you sign on the fifth engineer? A. Well we were running to New York and we thought the two, the second engineer and third engineer would fill the places of the second and third engineer that had left, so it was really a 1316
fifth engineer you can do without because he does not keep watch, and if any little thing turned up you can get the other engineers to do the small repairs on deck.

Q. You had finished taking on all your cargo, hadn't you? A. Yes, that was the last port of loading.

Q. Would you need a deck engineer again until you began to discharge cargo? A. Not compulsory, no.

Q. Would he be needed? A. Well, you can always find work for an engineer but he would 1317
not be needed at all.

Q. The winches would not be used? A. No, until they started loading up again.

Q. Anything that was necessary to be done could be done by the regular engineers on overtime? A. We had a cargo of coal, when we took a cargo of coal from the outward run to any continental port there is no winches to unload the cargo on the outward voyage, that is where the fifth engineer can repair the winches.

1318 Q. You were expected to bring coal back? A. Yes, always.

Q. Who were these men you signed on as second and third engineers? A. Who were they?

Q. Yes. A. Well, I forget their names, Portuguese names, just now, I have it in my book.

Q. That is not necessary? A. The names were hard to remember, if it was Tom Smith or something you could remember.

Q. Take the second, what examination did you make of him before he was taken? A. It is very seldom you make an examination of an engineer when he comes on the ship as long as he has the
1319 necessary certificate, that is quite sufficient.

Q. Did he have a certificate? A. He had a certificate as second or I would not let him on.

Q. How old a man was he? A. The man would be 40, I should think, no more than 40.

Q. The third engineer, did he have a certificate? A. I don't know, that is not compulsory.

Q. Under the Board of Trade rules two certificated engineers are sufficient for the ship? A. Yes.

Q. Were these men signed on before the Consul? A. Yes.

1320 Q. Were you present at the time? A. No, it was not necessary as long as the captain is there.

Q. Were these men competent engineers? A. Perfectly, if they were not competent I would never allow them to take charge of a watch.

Q. You found they were competent? A. Absolutely, yes.

Q. Did you observe their conduct in the engine room? A. Their conduct was quite exemplary in the engine room.

Q. Did you watch them? A. I watched them thoroughly. 1321

Q. What custom did you follow in order that you might watch these two Portuguese engineers? A. Well, when a new engineer joins a ship the chief engineer goes on watch with each engineer until we find he is fully competent; the third engineer comes on watch at 12 o'clock midnight or noon; if he comes on watch at 12 o'clock midnight I am always there to assist him, to show him everything, instruct him in everything he may not know about until I see he is competent to take charge for 2 or 3 hours during a watch, then I will sleep; then I will go on watch with 1322 the second either daytime or evening and I will instruct him until he is thoroughly versed with the engines, competent.

Q. Did you do that with these two engineers when you started? A. Yes, every watch.

Q. And you stood at least half of each watch? A. Half of each watch with those engineers.

Q. Until you were certain they were competent? A. I was 16 hours in the engine room until I found they were fully competent.

Q. Going back to your leaving Messina, when you left Messina were your turbines and all your 1323 machinery in the engine room in good proper condition? A. The only thing, there was nothing the matter with the turbines, it was just the connections, that is the expansion pipe leading between the HP astern exhaust to the LP astern exhaust.

Q. Just explain what this expansion pipe is? A. This expansion pipe naturally——

Q. Do you want to make a sketch of it? A. I will explain first. There are two turbines in the engine, both HP and LP right in the center,

1324 that is the main shaft. Always when there are two engines running there is always a certain amount of vibration between those two. To take up that vibration, I mean leading from the HP to the LP, there are various pipes, they have to be stiff pipes, made of steel as a rule. To take up this vibration they have to put in between that pipe what they call copper expansion piece to take up the expansion. This is corrugated so with the various movements of the engine it will give without breaking.

Q. Give back and forth? A. Give back and

1325 forth, that is what they call an expansion piece. I will sketch it for you, it will only be rough. These are the copper expansion pieces marked copper exp.

Mr. Sprague: I offer the diagram in evidence.

(It is marked Claimant's Exhibit R.)

Q. Showing you this Claimant's Exhibit R, I ask you if these pieces you marked copper expansion pieces are the two pieces you have re-

1326 ferred to? A. They are the two pieces I have referred to.

Q. What is it that comes through this pipe from the HP into the LP turbine? A. This is the LP turbine astern exhaust, I should put that on (marking on diagram).

Q. Through this LP turbine exhaust pipe does the steam go after it is passed through the HP turbine astern? A. Yes, that is the exhaust from the HP turbine astern.

Q. And then it goes through this pipe, through

the copper expansion into the LP exhaust? A. Yes. 1327

Q. That is only used when you are going astern? A. Only used when you are going astern.

Q. This copper piece, expansion piece that you have spoken of that something was the matter with in Messina, when had a new piece been put in there, do you know? A. This was renewed in Marseilles, that one (indicating copper expansion piece on the left hand side); this one cracked on the way on our outward passage but it made no difference because the small crack around it we managed to wrap with canvas and red lead to prevent the condenser drawing air; if it draws air of course you lose your vacuum and then you have no speed out of the engines at all; we wrapped it but I had it renewed in Marseilles. 1328

Q. With a new copper piece? A. On shore in Marseilles.

Q. Put them in? A. Put them in.

Q. Was that the piece you had trouble with in Messina? A. That was the piece I had trouble with in Messina.

Q. What happened to it? A. It cracked again.

Q. What is the cause of that cracking? A. Various causes, it is just because of the excessive vibration between the two turbines, or other ways that copper may be very very hard if there is no resiliency. 1329

Q. How much of a crack was there in that copper expansion piece? A. Three-quarters of the way around.

Q. And the effect of that was only seen when you were going astern? A. Only seen when we were going astern.

Q. You were not putting any steam at all

1330 through that pipe when you were going ahead, were you? A. No.

Q. Did you make temporary repairs to that at Messina? A. Wrapped it with canvas to prevent the steam coming out or prevent air coming in while going ahead.

Q. Did it prevent that steam coming out or air coming in while going ahead? A. Not altogether.

Q. Did it interfere at all with the use of your condenser? A. It didn't interfere at all with the use of it, but we were not getting the direct
1331 results with it being wrapped because it is very hard to wrap anything where still the vibration is taking place, it will still draw air through the small pores of the canvas; while going ahead you draw air, while going astern steam is coming out.

Q. Could you have got a new expansion piece in Messina? A. Impossible, no repair shop there at all.

Q. So that you went ahead with the expansion piece temporarily repaired in this way? A. Yes.

Q. With the idea that when you got to sea to blank this off? A. No, we went ahead with that till we got to a real place, we knew that being
1332 broke, we knew very well we would have to go ahead and astern in going to anchor, the ship must go astern, we knew we were going to Gibraltar, we knew very well we need to go astern there to drop anchor, so we continued with that until we got to Gibraltar, then at Gibraltar we knew we would need to go astern at Lisbon. We went there, although we were not getting the results.

Q. What do you mean you were not getting results, going slower, not enough speed? A. Going slower and burning more coal.

Q. Do you produce the engineer's log for the *Willdomino,* and is this it (handing witness book)? A. Yes. 1333

Q. Is this signed by you? A. Every morning.

Q. Whose signature is that? A. Mine.

Q. Who writes that? A. I do, no one sees that but myself, not even the captain, it is my official log.

Mr. Sprague: I offer the log in evidence.

(It is marked Claimant's Exhibit S.)

1334

Q. When did you write that up? A. At noon every day.

Q. How are the entries made down in the engine room, on a slate? A. No, on a bit of scrap paper, or what we call the scrap log, that is what we call a scrap log, I have always a scrap of paper.

Q. When are those scraps of paper brought to you? A. At the end of the fourth engineer's watch at noon every day.

Q. And you at once transcribe them into the official log? A. Into the official log.

1335

Q. This is your official log? A. Yes.

Q. That is written every day? A. That is written every day.

Q. What do you do with the scraps of paper that were sent up from the engine room? A. After finished they are no more use, tear them up, if it is on a slate just rub it out, just the same.

Q. If it is on a scrap of paper? A. Tear them up, throw them away.

Q. Are these an exact copy of the entries of

1336 the scrap and of the slate from the engine room? A. Yes.

Q. You say that with the exception of the crack in this copper expansion piece your turbines were in first class condition when you left Messina? A. First rate condition, I would not proceed to sea with a ship unless the turbines were in first class condition.

Q. At Gibraltar you took on bunkers, did you not? A. Yes.

Q. In answering any of these questions if you are not quite certain about anything you have
1337 a right to look at this log. How many bunkers did you take on at Gibraltar? A. I think it was 400 or 450, I don't know which.

Q. Just look at the log? A. 400 tons of coal were received.

Q. What kind of coal was that? A. I think it was a mixture of Dunham and Welsh, North country.

Q. Was it good coal? A. Pretty fair.

Q. At that time you had been using your low pressure and high pressure turbines together? A. All the time, yes.

Q. On your ordinary coal consumption for the
1338 two turbines was that sufficient coal with what you had left on board to take you to New York? A. Take us right to New York, we took into consideration staying in Lisbon, of course, loading; when you are loading cargo at any port you are burning coal through having to use the winches and dynamo.

Q. How much did you burn while in port? A. Sometimes only using two, sometimes all the lot.

Q. You averaged how much? A. Six tons a day, that is working nicely on the winches.

Q. Your log shows how much you actually burned? A. I believe it does, the coal averages 6 to 8 tons, coal used in Lisbon 29 tons (reading). 1339

Q. Did you have any standing orders also from the owners of this vessel about taking coal at any port in the event that through stress of weather or trouble with turbines it might be necessary for you to take coal before you could reach New York? A. No, that is up to the captain and the chief engineer to use their discretion.

Q. You were acquainted with the fact, were you not, that the captain had instructions to use Sydney? A. I thought you were speaking of Lisbon, from Gibraltar we were told to take sufficient bunkers to reach New York, in the event of bad weather or having to go slow through stress of weather we were to go to Sydney, I guess that was a short distance. 1340

Q. Will you turn to your log book and state when you left Lisbon? A. Left Lisbon at 4.15 P. M.

Q. What day? A. On June 24.

Q. Did you proceed on both turbines? A. On both turbines. 1341

Q. After you had left Lisbon and had gotten to sea, I believe you told me that you stopped your engines for a short time to blank off this copper expansion piece? A. Yes, not that day, the following morning.

Q. What day? A. June 25, 9.30 in the morning I stopped the engine to take these copper expansion pieces right out and put blank flanges on.

Q. The purpose of that was to avoid the escape of steam in the engineroom I suppose? A. No,

1342 we were on both turbines then, and taking those out was so I would get perfect vacuum; when you are going ahead there was no steam coming out, when you are going ahead the condenser is drawing air, but when you are drawing air you are spilling your vacuum, the vacuum is absolutely essential to get the best out of the engine, when we got away clear of the land we stopped and took the two expansion pieces out and put a blank flange there and blank flange here (indicating), that then would prevent us going astern.

1343 Q. That gave you perfect vacuum? A. Perfect vacuum, 29½.

Q. It made it impossible for your engine to use the going astern turbine? A. The going astern turbine.

Q. How long were you stopped for that? A. 8 hours and one half.

Q. That was not for any breakdown? A. Not the 8 hours and the one-half, two hours and thirty minutes, two hours and one-half.

Q. That was purely for the purpose of blanking off the copper expansion pieces? A. Yes.

Q. On the following day you had also to stop
1344 your turbines, did you not? A. Do you mean for the continual breakdown?

Q. June 26? A. Yes, the evening, at 10:20 P. M. June 26.

Q. State what happened then? A. Well, this occurred at 10.20 P. M., the forward valve spindle on the forward oil pump broke.

Q. Will you state please what this oil pump did and describe the oiling system on these turbines as well as you can? A. This oiling system was called the gravity system, by that it means that right above the engineroom there are two

big oil tanks which contain about 350 gallons of 1345
oil; that oil runs from these gravity tanks right through to strainers on the bottom of the engine-room's platform, and then right through all the bearings and the thrusts of both the HP and LP turbine and the gears. From there it all flows into one huge drain tank underneath the engineroom platform. These oil pumps are for pumping this oil from the drain tank back up into the two gravity tanks.

Q. Where it completes the cycle? A. It completes the cycle, it is one constant cycle.

Q. You have two oil pumps, do you, to do that? 1346
A. Two oil pumps working all the time.

Q. Are they connected together, they were both working on the same circuit? A. Working on the same circuit from the same suction through the same delivery.

Q. Is one oil pump sufficient to do all that work? A. One oil pump is sufficient to do all that work.

Q. If it did not break down? A. If it did not break down.

Q. That is the purpose of having two oil pumps? A. That is the purpose of having two oil pumps, in case one breaks down. 1347

Q. This valve spindle is an iron bolt, is it not, that works back and forth allowing the steam to enter the chamber of the cylinder and work the little rod piston? A. Yes, the valve spindle is connected with the slide valve and the slide valve works the steam into the pump.

Q. So when the valve breaks the pump stops? A. Yes.

Q. And that pump does not carry the oil up? A. If that stops of course it would not be of any use.

1348 Q. Who was in the engineroom? A. The fourth engineer.

Q. He was an Englishman? A. A Scotchman.

Q. When did he join? A. In Messina.

Q. He had proper papers? A. Oh yes, he was a thorough mechanic.

Q. Was he acquainted with turbines? A. Well I don't know whether he had been with turbines before, but he was thoroughly acquainted with them by the time we were there, he had all that experience from Messina right past Lisbon on watch alone right up to this time.

1349 Q. Where is this fourth engineer now? A. I have no idea, I think from what I heard yesterday that he left the ship to sign on some other ship for American money, that is about 3 times as much as he was getting on our ship.

Q. What was his name? A. Wilson.

Q. His first name, do you know? A. I don't know, you never know the first name, it is always Mr.

Q. Were you called to the engineroom as soon as the breakdown occurred? A. I was there as soon as anything was wrong.

1350 Q. What did you find? A. He stopped his engines upon seeing his oil pump stopped, he stopped his engines straight away.

Q. What is there to indicate to the engineer when the oil pump stops, is there any gauge or anything that shows it? A. No, no gauge.

Q. Haven't you sight glasses? A. Yes, that is only to indicate if the oil is running.

Q. If one pump stops? A. If one pump stops naturally all the oil will go right down to the drain tank, and if the other pump is not pumping there will be no oil going into the gravity, therefore no oil on the bearings and the thrusts.

Q. Can you see that from the sight glasses? A. See that standing anywhere on the engineroom because by the glass there is an electric light above right in the center. 1351

Q. Three of them? A. Three of them.

Q. What is the purpose of that? A. To see if the oil is running all the time, but you depend on the glasses more, look over and see if they are working.

Q. You can see it easily? A. See it easily.

Q. Was it the proper thing to shut down the turbines as soon as the pump stopped? A. Yes.

Q. Why? A. Because if a pump stops sometimes it may take 5, perhaps 10 minutes to start that pump again, and if you count with the engines going 3200 revolutions per minute if once there is no oil there naturally the friction caused by heat, these white metal bearings and thrusts, it will melt. 1352

Q. The white metal, you mean babbit metal? A. The thrust pads and bearings would melt, they are running in babbit metal all the while.

Q. Did you examine the pump when you got down to the engineroom? A. Straight away.

Q. How soon did you get in the engineroom after the break occurred? A. 10 seconds, less than that, I was down there in a flash. 1353

Q. Did you hear the slowing down of the engines? A. Yes, my room is just above the engineroom, the slightest noise in the engineroom I can tell what it is, variation of steam vacuum, starting or stopping of pump.

Q. You came right down? A. Came right down in a second.

Q. And you examined it? A. Examined the pump.

1354 Q. You found what? A. That the valve spindle was broken.

Q. Where was it broken? A. At the end of the double eye, I think there is a double eye screwed on to the end of the valve spindle, this had broken right at the end of the double eye or end of the thread.

Q. The first thread? A. That is the weakest part of the valve spindle.

Q. The weakest part? A. The first or last.

Q. It had broken right there? A. It had broken right there.

1355 Q. When had you put that valve spindle in? A. Been in all the time.

Q. Wasn't that the one you put in at Messina? A. That one I put in at Messina, yes, that is the valve spindle I put in at Messina.

Q. It was all right when you put it in? A. Absolutely.

Q. Did you examine the other pump at that time, the after oil pump? A. No, because it was all right.

Q. What did the fourth engineer report to you as to whether that was picking up the oil or not? A. When I was down there I could see

1356 straight away it had not picked up the oil because if it had straight away there would be no accident, the bearings would not have melted out.

Q. Did you test that pump then to see why it did not pick up that oil? A. No, after priming it it picked up the oil but that was when all the damage was done, of course this all happened in about 30 seconds.

Q. The turbines revolving at these high revolutions had to have constant oil? A. Yes.

Q. That is the reason for the storage tanks in

the top of the engineroom, is it? Yes, that is it. 1357

Q. When you examined this pump after you had repaired the damage you found that the after pump was all right? A. All right, yes.

Q. Could it possibly have been air that had leaked into the pump? A. Everybody thinks it must have been air in the system, that is what they are trying to eliminate, that is what they have all these experts to see if it was possible for the air to get in the pump, that is the only thing that could possibly prevent that pump from picking up the oil.

Q. It worked all right immediately after? A. 1358
It worked all right immediately after.

Q. You made an examination of the turbines to find out whether any of the white metal had been burned out? A. Straight away.

Q. What did you find? A. I found the LP thrust pads had melted so I immediately put the spare pads in place.

Q. You had a set of those? A. I had one set of each.

Q. How long did it take you to take out and put the spares in? A. From stopping until got full away on the engines, 8 hours and a half, 1359
somewhere around that, 7 hours and 40 minutes.

Q. Was there anything the matter with the HP turbines at that time? A. Nothing at all.

Q. Having put in the spare thrust pads on the LP turbines you went ahead full speed? A. Ahead full speed, yes.

Q. What did you do with the valve spindle that had broken? A. I renewed one, the oil pump is exactly the same size as the sanitary pump in the engineroom, or the bilge pump; I took one from the bilge pump and put it in this.

1360 Q. That was not the only bilge pump you had? A. No, could make two more pumps in the engineroom into bilge pumps just by the turning of the valve.

Q. This was the smaller one of the bilge pumps? A. A little one.

Q. You took the valve spindle from the bilge pump and put in the forward oil pump? A. Yes.

Q. Then did it perform its function? A. Naturally it would not start without, that is the main thing in the oil pumps.

1361 Q. When next did you have any trouble? A. June 29 at 1.05 P. M.

Q. Who was in the engineroom then? A. The third engineer.

Q. Were you there? A. I was not in the engineroom but I was down there about 10 seconds after.

Q. How long before that had you been in the engineroom? A. About 5 minutes.

Q. You had gone down at the beginning of this watch? A. Down there at the beginning of each watch on account of the steam, at the beginning of each watch with cleaning fires steam

1362 always drops back, I always go down there to get the steam up as quickly as possible to make the firemen work.

Q. You were down there at noon? A. Yes.

Q. You were there until 1 o'clock? A. Until everything was all right, as soon as the steam came up I left.

Q. Who was the engineer you left in charge of the watch? A. The Portuguese engineer, the third.

Q. By that time had he become acquainted with the engineroom so you considered him competent?

A. Thoroughly, if he was not I would not leave him there, I would put him on the deck. 1363

Q. What did you find happened when you got down in the engineroom at 1.05 P. M. on the 29th? A. What I found straight away was that he had shut the engines and the engines had stopped on account of the oil pumps stopping again. Each engineer had orders from me on the slightest trouble with either oil pump they must instantly stop the engines, or slow down; of course it always takes a longer time for the engines to stop after shutting steam off. That was the first thing he did, he noticed that the forward pump had stopped, and on examination he found that the spindle had stripped on the same forward oil pump. 1364

Q. Did you find that he had shut down the engines? A. Yes.

Q. Shut off the steam? A. Shut off the steam.

Q. And they were shut off when you got down? A. They were shut off when I got down, yes, sir.

Q. Which valve spindle did you find had caused the trouble this time? A. The after valve spindle.

Q. On the forward oil pump? A. Yes.

Q. That is not the one you put in from the sanitary pump? A. No. 1365

Q. You said it had stripped? A. Stripped in the thread.

Q. Stripped the threads right off? A. On examination I found that the thread, it was really too small to expand; many a time you get a nut on an ordinary bolt rather slack. This is what had made this strip, what we call stripping.

Q. Pulled the threads right out from the nut? A. Right out from the nut, from this double eye.

1366 Q. So it did not hold together at all, just as though it had broken? A. Just the same.

Q. When had that valve spindle been put in? A. Right from the time it was made.

Q. Originally? A. Yes.

Q. It had been there ever since you had been there? A. Ever since I had been there, yes.

Q. Did you make an examination then of the other pump, the after oil pump? A. No, that did exactly as it had done in a previous time; although the two pumps are working together from the same suction, through the same delivery, that pump again refused to pick up the oil
1367 immediately; if it had picked up the oil straight away no accident would have happened.

Q. Did you open the pump to see if anything was the matter? A. No.

Q. What did you do? A. After priming it again, opening the air cup, letting in the air, the pump it worked.

Q. You didn't find anything the matter? A. No, because it was working all the time pumping because both pumps are from the same suction, when the one pump stopped this other one failed to draw the oil immediately as it should have
1368 done.

Q. Did you make an examination then of the turbines to find out what damage, if any, had been done? A. Yes.

Q. What did you find? A. I found that the LP thrust pads had again melted, but the HP thrust pads had melted and the HP labyrinth packing and the HP bearings were melted, and the turbine shaft had worn down.

Q. That is the turbine shaft in the HP? A. Yes.

Q. Had worn down? A. Had worn down.

Q. How much out of place had that got? A. 1369
3/16, gotten aft 3/16.

Q. What is the effect of a displacement of 3/16? A. Strips the blades.

Q. Throws them out of line? A. You see in a turbine there are what you call movable blades.

Q. Rotator blades? A. Rotator blades, from their revolving all the time; there are stationary blades on the bottom half of the turbine casing and the top half; when the shaft goes aft the blades on the rotator cut the stationary blades and break them off.

Q. Does this picture show these blades (hand- 1370
ing witness picture)? A. Yes, you see here, this does not show the thrust, this is the rotor, that would be (indicating the shaft), this is the rotor shaft all these are the blades (indicating disks attached to the shaft). In between these two rows here there is a row of blades there, another row there, a row there, in between each of these blades there are rows of stationary blades. When this thrust pad melted here with the metal melted that shaft goes aft, these rotator blades catch the stationary blades.

(Witness has indicated on page 24 of 1371
gear turbines of Parsons Marine Steam Turbine Book.)

(The page is marked Claimant's Exhibit T for identification.)

Q. All this had been caused by the lack of oil, had it? A. By the lack of oil, yes; nothing will melt while there is any lubrication there.

Q. Was there any way for you to repair that HP turbine after it had gotten aft, after the

1372 shaft had gone aft 3/16 of an inch as you stated? A. No way at all.

Q. What had to be done to repair it? A. I should have got that turbine to work if I had any what they call labyrinth, or fin packing that is a new kind of packing to prevent the escape of steam from the inlet end of the turbine.

Q. Even then you would have to shift? A. Put the spare thrust in.

Q. Hadn't those been stripped? A. Before I started up I would have cleaned up the blades, lifted the HP turbine casings and straightened
1373 the blades that were not broken off, that is the only damage.

Q. That would be a big job? A. A terrible job at sea, but if it was necessary I would have done it, to save time, everything on the job, I shut the HP and worked on the LP alone.

Q. You cut the HP out? A. Yes.

Q. What did you do to the LP turbine? A. I renewed the LP thrust pads again, all the blades in the LP turbine were perfect, in running condition.

Q. The shaft had not gotten out of position? A. The shaft had gone down 8/1000, which is
1374 very little; before I put steam on there I turned on the engine by hand to see if it worked all right.

Q. How did you get it back to the proper position? A. Forced it back to the bar; we put it back.

Q. Did you have any other spare set of thrust pads to put in this LP turbine? A. No spare set.

Q. Where did you get this? A. I took the astern thrust pads, put it on the ahead.

Q. You had already used the spare on the 26th? 1375
A. Yes, through the melting of the others.

Q. This took you a considerable period of time? A. 3 days and 3 nights without a wink.

Q. Were you working all the time yourself? A. All the time myself.

Q. You had no sleep? A. Never shut my eyes.

Q. What about the rest of the force? A. They were there.

Q. The same way? A. Yes.

Q. You were in the engineroom all the time excepting when you went to get your meals? A. Yes.

Q. Were you assisted in any way by the deck 1376
department? A. The second day the second mate or second officer, he asked me could I give you a hand down there and I says yes, anybody can give me a hand in regard to slacking nuts off and welcome; he came down; very few would mention anything like that; he worked all night and was as black as a nigger the next morning.

Q. This machinery is all covered up, cased in? A. Cased in.

Q. To set it adrift you have to take off a large amount of housing? A. Yes.

Q. It takes a long time? A. To take every- 1377
thing adrift.

Q. How did you make your steam connections after you cut out your HP, am I correct in believing when you are using both the HP and LP that the steam goes through the HP, then exhausts at the end of the HP, goes into the LP, then the exhaust goes into the condenser? A. Yes.

Q. When you blanked off the HP you let the steam directly into the LP? A. Yes.

Q. How did you do that? A. There is an emergency set of piping, in case the LP breaks

1378 you can blank that off and run on the HP; if that breaks down you can blank that off and run on the LP.

Q. That is what you did here? A. That is what I did here.

Q. When you send your steam into the LP turbine direct it has to be reduced, does it not, in pressure? A. It is reduced, yes.

Q. Your steam when it comes from the boilers and is put into the HP direct,—— A. Say it leaves the boiler at 190, enters into the HP with about 130, it loses 60 on its journey; it has to leave the boiler and go through all the super
1379 heated steam pipes to the ordinary.

Q. When it enters the LP turbine what is its pressure? A. 1½.

Q. About 1½ pounds? A. Yes.

Q. And the function of the LP is to take what additional force there is out of this? A. Yes, the LP turbine will work at 1½ pounds pressure as long as you have good vacuum; we have got 6½ knots. The two voyages previous to that it was exactly the same way, broke down, the HP blanked off, came 4000 miles from St. Nazaire to Sydney, Portland, New York on the LP.
1380 When I got here that time these turbine experts came down and said—of course complimented me for getting the ship in, they said, what pressure did you use on the LP, I said 2½; they said too much altogether, 1½ is quite enough. I think then I made an average of 6¾ knots, this time I think my average was 6½, or something like that.

Q. You mean from the time of the breakdown? A. I mean from the time of the breakdown to the time I got to Sydney.

Q. The result then of turning the steam di-

rectly from your main pipe into the LP is a considerable loss of efficiency, isn't it? A. This LP would not stand the same pressure as the HP, the LP turbine is not designed for the same pressure. 1381

Q. You have to reduce that steam? A. The steam must be reduced.

Q. As you reduce it of course you lose considerable force? A. Yes.

Q. That means it takes more coal, and you make less speed than with both? A. Yes, really on the LP the steam is going direct from the boilers to the condenser, getting condensed, the water is no sooner condensed than it is through the boiler again into steam; that cycle naturally you burn more coal because you have more water to heat, more water to convert into steam. 1382

Q. You are turning the pressure down from 90 to 2? A. Yes, that loses pressure.

Q. That is the reason why you take so much more coal and less speed? A. Yes, the steam is no sooner generated than it is water.

Q. Turning to your log again, after these three days or thereabouts work you finally got the LP going all right, did you? A. Yes.

Q. Did you have a consultation with the captain about that time as to what was then to be done? A. Yes, I told him that as soon as we were getting fixed up, I said well what is the nearest port, so he looked at the chart and said Ponta De'gada, Azores, so I said, we will have to go in there to get my spare thrust remetaled, certainly we want more coal now because I will be consuming more on the LP, we might as well get water for the boilers. 1383

Q. How about oil, you lost some oil? A. Yes, lost about 300 gallons of oil; naturally I must

1384 take more oil, oil is of just as much value on a turbine as coal for lubricating purposes. That oil has been lost by the overflowing of the drain tank under the engineroom platform through the after oil pump failing to pump.

Q. That is at the time of the breakdown? A. At the time of the breakdown.

Q. The oil all drained down through the storage tank into the drain tank and flowed over the top? A. Yes, and everybody was disturbed trying to find out, they noticed the oil overflowing.

Q. Turn to your log and state when you left the point after you had the breakdown? A. I
1385 haven't the exact time, we got away somewhere around noon.

Q. What day? A. July 2nd.

Q. Then you put into Ponta Delgada? A. Into Ponta Delgada.

Q. When you got to Ponta Delgada did you have a survey held on your ship? A. I had.

Q. Who held it? A. A man named Mr. Hunt, he is a chief engineer of the *Lord Kitchener* which was in there, belonging to the British Government; a man named John Finkleton, chief engineer of the steamer *Fort Russell*.

1386 Q. Did they make a report after they had made the survey? A. They made a report after they made the survey.

Q. That report we have offered in evidence, did they also sign a report in your log book? A. This is what they signed (pointing to the page of July 4 in the log). Independent of that they gave me a reference as well for getting the steamer into port (producing letter); that is what they gave me when they could see what I had done. They were two expert turbine men as it

happened on those two ships; I think Hunt had 1387
been in charge of turbines during the war.

Q. I show you Claimant's Exhibit G and ask you if this is the order for survey and survey reports that these two gentlemen made on your vessel (handing witness paper)? A. That is the one, yes.

Q. That is what they gave you? A. Yes.

Q. What did you have done on your machinery at Ponta Delgada? A. I had two new valve spindles made.

Q. Where did you have those made? A. I don't know the name of the firm.

Q. A machine shop on shore? A. Oh, yes, a 1388
machine shop on shore.

Q. Did you have these spare parts rebabbited? A. I had the same thrust pads rebabbited.

Q. What else did you have done? A. I had the steering engine steam pipe renewed.

Q. About the turbine? A. I had the two valve spindles made for the oil pumps, various pins renewed on the oil pumps and these thrust pads rebabbited.

Q. That is all that was done ashore? A. That is all that was done ashore.

Q. Was there anything done on the HP turbine? 1389
A. Nothing whatever, there is not any use.

Q. Why? A. A firm like that having a shop about the size of this room, with one lathe, would not take down that job in six months.

Q. Was there any shop there large enough to do the job? A. No.

Q. Was there any shop in the vicinity, in the Azore Islands that was large enough? A. I don't think there was.

Q. That demanded expert attention? A. That demanded expert attention, and I must remember

1390 as well that we had perishable cargo to get along as quickly as possible as long as I knew everything was safe, knowing I had gone previously, two voyages previously on that same LP turbine 4,000 miles I thought surely I could reach Sydney or Halifax as the case might be, 1,600 miles on the LP, seeing it was working all right.

Q. What did you do on the ship yourself on this machinery while you were there? A. What do you mean?

Q. Did you take down the pumps, overhaul the pumps, the lubricating machinery while at Ponta Delgada? A. They were pumping all right, all
1391 we needed was to renew, I made the pumps in a thorough workmanlike state.

Q. This report of these two surveyors says general overhaul of lubricating machinery? A. Yes.

Q. "General overhaul of machinery subject to chief engineer and my advice," did you do that? A. The main engines, it was unnecessary, looked at it, we would never had done that in six months.

Q. On the lubricating machinery? A. I overhauled all that.

Q. Was it in good condition? A. Everything
1392 was perfect, I would not allow the shore people that made the spindles to look at it, I did it myself so it was all right, perfect.

Q. The lubricating? A. Yes.

Q. How much oil did you take on board at Ponta Delgada? A. I don't know whether it was 3, 4, 5, or 6, it is a long time ago. (Looking at log) I think it was 4 barrels, each barrel holding 40 English gallons, or 50 American gallons.

Q. How much coal did you take on board? A. 250 tons.

Q. Were you restricted at all in taking your

coal at Ponta Delgada, or could you have taken more if you wished to? A. Well, I think we could have got more, of course that is the captain, he goes ashore, I told him what was necessary, we have a consultation what we think is necessary then we come to the conclusion what is necessary and he goes ashore and buys it. 1393

Q. Did you have that consultation? A. Yes.

Q. And you agreed on 250? A. Absolutely.

Q. In your opinion was that sufficient to take you to New York? A. Yes.

Q. Even going simply on the LP? A. Yes.

Q. You also had in your own mind the possibility of taking coal at Sydney in the event of head winds or having troubles? A. Yes, I had 629 tons of coal leaving Ponta Delgada. 1394

Q. That was sufficient to take you to New York, was it? A. Sufficient to take us to New York.

Q. Then you proceeded from Ponta Delgada to New York, you used the LP turbines all the way over? A. All the way over, yes.

Q. With the HP blanked off? A. With the HP blanked off.

Q. Did you have any trouble with the turbines or the oil pumps after Ponta Delgada? A. None at all, everything worked beautifully.

Q. Did you make less speed than you anticipated? A. Yes. 1395

Q. Did it take a greater amount of coal than you anticipated? A. Yes, I measured the coal and found we were burning approximately 50 tons a day.

Q. Eventually you had a consultation with the captain, did you, as to what would be best to be done about proceeding to New York, or putting into North Sydney? A. We were making Sydney

1396 because we knew it would be impossible to reach New York with that amount.

Q. When did you make up your mind? A. Four or five days after we left, we were making very little speed, we could see we would have no coal left, then the ship would have to be towed home, a complete loss.

Q. You decided to put into Sydney for safety? A. Decided to put into Sydney.

Q. When you got into Sydney what did you find the condition regarding obtaining coal? A. What do you mean?

1397 Q. Could you obtain it? A. Obtained 62 tons, in the meantime we got orders from New York to bunker at Halifax, so we took on just sufficient to take us to Halifax.

Q. Then you came down from Sydney towards Halifax? A. Yes, we left Sydney towards Halifax.

Q. Were you in the engineroom at the time of stranding? A. No, I was in my bunk.

Q. Did you feel the stranding? A. Felt the stranding, yes.

Q. What did you do? A. Rushed out, I was on the forecastlehead as soon as the chief officer

1398 was there.

Q. Anything you could see there? A. I could not see a thing, I knew something was there underneath.

Q. Did you then go to the engineroom? A. Previously to my running on the deck the telegraph was given full astern, she was going full astern, and then I was out on deck.

Q. Did you go to the engineroom before you went on deck? A. Yes, that is what sent me up, I heard the telegraph, and then feeling the bang naturally I went in the engineroom right away.

Q. Who was on watch at the time? A. We were on 6 hour watches, it was the third engineer and—I mean the second engineer and the fourth engineer, we were keeping 6 hour watches then, myself and the Portuguese third, and the fourth and the Portuguese second. 1399

Q. When did you begin doing that? A. As soon as ever I repaired the ship after the three days' breakdown, before arriving in Ponta Delgada.

Q. From that time before you reached New York you were keeping 6 hour watches, two men on watch all the time? A. Yes.

Q. Your engines worked all right getting this vessel off the reef? A. Yes, full astern, the engines got her off. 1400

Q. What had you done at the time of the three day repairs that made it possible for the vessel to go astern, I understood when you blanked these flanges off—— A. Put a blank there (marking on Exhibit R), that is cut off entirely from the HP turbine.

Q. You mean, do you, that when you connected the LP directly with the steam pipe and blanked off the exhaust on the HP that you could use the LP astern? A. Yes, when she is blanked off there both go ahead and astern, the LP, because it is not in connection with the HP at all; when that is blanked off there, there is no air being drawn through these expansion pieces, that is why we blanked them off altogether, I took those off altogether. 1401

Q. You put a blank flange in here next to the copper? A. No, those two were taken away altogether, that is what we stopped for after we left Lisbon, when that HP is cut off altogether from the LP one engine is complete both ahead

1402 and astern, if we want to drop anchor or anything astern.

Q. You eventually went into Halifax? A. Into Halifax, yes.

Q. Where you lay for some time? A. Yes, about seven days, I think.

Q. And then came down to New York? A. Yes.

Q. Is that the Lloyds' certificate you have on your engine (handing witness paper)? A. Yes.

Mr. Sprague: I offer this in evidence and ask permission to introduce a photo-
1403 stat copy on the ground that this man has to go with the ship.

No objection.

(It is marked Claimant's Exhibit U.)

Cross examination by Mr. Loughran:

Libellants' counsel asks for the production of the deck rough log kept on the voyage.

Claimant's counsel states that he is attempting to find the scrap log and if he can
1404 find it it will be produced.

Libellants' counsel also asks for the production of the logs of the vessel on the two previous voyages for which a demand has previously been made.

Claimant's counsel states that the logs already produced do cover the voyage of the vessel from Norfolk to Marseilles while operating on both HP and LP turbines with a cargo of coal and sees no reason for producing any other logs of the vessel, on

the ground that the same are immaterial, incompetent, and have no bearing upon issues involved in this case. The logs already produced afford any basis of comparison which counsel for libellants may require in determining the difference of coal consumption, speed, etc., when the vessel is on HP and LP and when she is only upon the LP turbines. 1405

Q. Did I understand correctly when you said that on June 25 you took out this expansion piece and put in a blank flange, and then did you say that you could not go astern at all? A. That was the first breakdown, the blank flanges were put in the day after we left Lisbon, I forget about the dates. 1406

Q. Look at the log? A. The day after we left Lisbon, if that was the date.

Q. I don't care about the date, but is it true that you could not go astern at all when this blank was put in? A. No, we could not go astern at all when this blank flange was put in on June 25.

Q. After you had used up your spare thrust pads, which I understood you put in to replace those that had melted, did I understand you to say that you later replaced the spares after they had burned out by taking out the astern thrust pads and putting them in the places of the others? A. Yes. 1407

Q. So then for another reason your engine was prevented from going astern, was it not? A. No, in place of these thrust pads that I took out of the astern side I packed up with Muntz metal ring, which packs in the same place as thrust pads.

1408 Q. Then that did not prevent the engine from going astern? A. No.

Q. Did this same condition, brought about by replacing the expansion piece by the blocked flange, exist throughout the entire voyage after you left Ponta Delgada? A. No, I had the spare gears remetaled and the new thrust pads refitted.

Q. But you still had the expansion piece blocked up there, didn't you? A. Yes, but excuse me, you are talking about the expansion piece and the thrust pads?

Q. I understood that you said that when the expansion piece was replaced by the blank flange
1409 that you could not go astern? A. Yes, while we were on two turbines, we could not possibly go astern, while these were blanked off, that is while we were going on the two, but on the LP you can go astern.

Q. So that after that was done you could go astern on only the one turbine, the low pressure? A. Oh, yes, indeed.

Q. What were those two previous voyages you speak of when the high pressure broke and you went on the low pressure alone, did I understand you went to Australia? A. No, it was between
1410 St. Nazaire and Sydney, Cape Breton.

Q. What was the cause of the high pressure breaking down at that time? A. That was because of the faulty lubrication.

Q. The same thing practically? A. No, the lubrication had been entirely altered by the Vulcan Iron Works, a different system altogether.

Q. Do you know how old these engines were? A. I don't know, they were built during the war, I knew that.

Mr. Loughran: It appears on the certificate as May 23, 1919, the certificate is late? 1411

Mr. Sprague: Yes, I think they were built about three or four months prior to that.

Q. How long had they been running on the system of lubrication that was in the boat during the voyage in question, do you know? A. Do you mean up to the time of the first breakdown, the previous voyage?

Q. Yes, was that the first voyage with the new system, this was probably the second voyage, she came over from Norfolk on this and went back on it? A. Yes, she had one voyage previous on this same system, the voyage between the States and Danzig and back to the States. 1412

By Mr. Sprague:

Q. This would have been the second round trip? A. This would have been the second round trip, yes.

By Mr. Loughran:

1413

Q. When you speak of a voyage do you mean a round trip generally? A. Yes, right from our place starting to the time we get back, New York back to New York, Philadelphia back to Philadelphia.

Q. Did you have any trouble going over the voyage immediately preceding this, that is the one in the log of this run from Norfolk over to Marseilles? A. No, sir, none whatever, no trouble with the engines worth speaking about, only little odds and ends that any ship is liable to have.

1414 Q. But in the two previous voyages to this you had trouble and ran on the low pressure almost entirely? A. No, not the previous but the voyage previous to that, three voyages ago.

Q. About what speed did you make over from Norfolk to Marseilles? A. 9.1.

Q. The average? A. That was the average speed.

Q. And burned about 42 or 43 tons? A. That is the average consumption, 43 tons.

Q. About how many more tons a day did you think it reasonable to rely upon on account of the increased consumption due to the operation
1415 of the low pressure turbine exclusively? A. You mean from Ponta Delgada to New York?

Q. From anywhere, generally speaking, when the high pressure is cut out you can only go on the low pressure, how many more tons a day is it reasonable to count on burning than when both turbines are running? A. Eight tons a day.

Q. So did you when you left Ponta Delgada, knowing that the low pressure was to be in operation alone, count on burning 50 tons a day, or 51? A. Well, 50 was the average consumption.

Q. Was the average that you did burn, or was
1416 the average you thought you would burn? A. Average that we did burn.

Q. And about 50 or 51 tons a day, that is about eight tons more than normally used, is in your opinion what you should have provided for under the circumstances, is that true? A. Yes.

Q. I believe that you stated that you could have repaired these thrust pads after they had burned out if you had any labyrinth or fin packing, is that so? A. If I had any fin packing I could have repaired them at sea, but it would have been a very long operation, a week to 10 days.

Q. You stated that at Gibraltar you took on a quantity of coal, which you stated to be fair; by the term fair do you mean of average ordinary quality? A. Ordinary quality, yes. 1417

Q. Fairly good coal? A. Not excellent, you say fairly good coal.

Q. You have three degrees, one excellent, one fair, one poor to bad? A. One excellent, one fair, one poor.

Q. Did you put in a new valve spindle at Messina? A. Yes.

Q. And then did that break again? A. That one broke, yes.

Q. Where did you replace that? A. From the spare bilge pump. 1418

Q. How many engineers do the requirements state you should have on a vessel of the type of this? A. Four, the British Board of Trade require four.

Q. Does that mean one chief and four others? A. No, one chief and three others, three watch keeping engineers and the chief.

Q. Provided they went in three watches? A. Yes, four on and eight off, four hour watches.

Q. Are any of these engineers that made this trip connected with the vessel any more? A. Well, coming out, none of them. 1419

Q. They have all left? A. They have all left.

Q. Where did the fourth engineer leave? A. He left here, I believe he has gone on some steamer to Australia, from what I heard from the second officer, because he gets three times the money he was getting here, he gets American money.

Q. When did you sever your connection with the ship? A. Do you mean when I was paid off?

Q. Are you still employed by the Williams

1420 Steamship Company? A. Yes, until I get to my destination in England.

Q. You are being paid for your time at present? A. Oh, yes.

Q. You expect to sail on the *Willdomino?* A. I am not going chief engineer on the *Willdomino* again, I am going home to England.

Q. How long did it take you to run from Messina to Lisbon? A. 13 days.

Q. Was this the only experience this Scotchman, the fourth engineer, had in handling turbine engines before he was put on to stand watch, or with a Portuguese engineer? A. Yes.

1421 Q. When you left Messina you had five British engineers aboard, didn't you? A. Five, including myself.

Q. Yes, and then three left, leaving you and the fourth who were British at Lisbon? A. Yes.

Q. And these three that left, you stated that the second engineer was troubled with heart trouble and drink trouble, did he ever complain to you about anything else the matter with him? A. No, his heart was the one cause of his complaint.

Q. And the third had brain fever and his wife

1422 had died? A. No, the second engineer's wife had died.

Q. The third had brain fever, did he complain of anything else? A. He complained of the heat, he couldn't stand the heat of the engineroom.

Q. And the fifth had trouble with his leg? A. Trouble with his leg, shot wound.

Q. Did any of them have trouble with pyorrhea, trouble with the teeth? A. That was a common complaint, I knew the third engineer had that, but nine men out of ten had that.

Q. That is the same man that had trouble with

his leg? A. No, the third engineer had bad teeth. 1423

Q. That is the brain fever man? A. The brain fever man.

Q. None of the others had teeth trouble? A. Not that I am aware of.

Q. Did you have any other differences with these men, any disagreements that might tend to disgruntle them? A. Things don't work smooth, anybody in authority have always a little bit of disagreement with people.

Q. Then you did have some disagreements? A. Nothing worth speaking of, not troubling me.

Q. Did you fire them, did you discharge any of them? A. No, they got doctors' certificates. 1424

Q. Are these certificates presented to you? A. No, but before they can be paid off the ship they must have these doctors' certificates or else we would never pay them off in a foreign port.

Q. They present them to you? A. Not to me, the captain and the British Consul.

Q. Who keeps them? A. The captain, he would keep them naturally.

Q. After leaving Ponta Delgada you rearranged the watches, did you not? A. Yes.

Q. And with these four men? A. Myself and three more. 1425

Q. Yes, yourself and three men, did you stand watches? A. I did.

Q. One in three, that is four on and eight off? A. No, six on and six off.

Q. I am referring to the beginning, to the beginning of the voyage after leaving Ponta Delgada? A. I started the six hour watches soon after I repaired the breakdown, after I repaired the breakdown we had 24 hours' run into Ponta

1426 Delgada. That is where I commenced the six hour watches, so that there was no fear of anything else occurring which I could prevent, so that everything would be absolutely sure in the engineroom.

Q. When did you run four on and eight off, from Lisbon to Ponta Delgada? A. Every time, right to New York all the voyage, that is the regular watches, right up to the time after I repaired the breakdown six on and six off.

Q. Then you started six hour watches and continued to Halifax? A. Right to New York.

1427 Q. Could these Portuguese fellows talk English? A. A little.

Q. Then they were supposed to be on watch, one English speaking man, at all times? A. Yes.

Q. However, I think you stated that at the time the vessel ran into something off Halifax there was just one of the Portuguese men on watch, is that true? A. Yes, the second engineer was on watch.

Q. However, you shortly after went into the engineroom? A. I was there as soon as ever the bump was felt.

Q. Did you look about when you came out of
1428 your stateroom on the way down, did you observe the kind of weather? A. I knew it was foggy because nobody could sleep with the whistle going every three minutes, the sound of the whistle, nobody sleeps on ship in a fog.

Q. Did you see it was foggy? A. Absolutely foggy, couldn't see your hand in front of you.

Q. Was it still or was there any breeze? A. There was a little breeze, wind, I didn't take much notice of the wind, the fog was what I was noticing.

By Mr. Single: 1429

Q. Just what figuring did you do to figure out how much coal you would need from Ponta Delgada to New York, I mean how do you figure out what your requirements would be so you will know how much coal you will take on at a place like that, do you leave it up to the captain or figure it out yourself? A. As a rule we converse together, take the distance, say what we think we will make per day, maybe 150, 180, I think we said we will make 150 then, at 50 tons a day, quite ample, 12 days' run, or 11 days; we took sufficient to arrive there in case anything went 1430 wrong as well, I think, leaving Ponta Delgada we had over 600 tons.

Q. Using that as a basis you told the captain how much he should buy? A. Yes, we both conversed together

Q. Upon leaving Ponta Delgada, where were you going? A. Going to New York.

Q. I believe your log book states that? A. Bound to New York, proceed to New York—"Ponta Delgada towards New York."

Q. You are told by the captain where you are going, are you not? A. Well, before we leave 1431 one port I always want to know what port we are going to.

Q. In order to know how much coal you should take? A. Yes, there is no use in my setting out unless I know I have sufficient coal.

Q. At the time you left Ponta Delgada, you understood you were going to New York and made your entries in your log book? A. That is his orders.

Q. Is it written every day? A. Every day.

1432 Q. Written in your handwriting, you yourself? A. Everything.

Q. Can you account for any discrepancies between your log and the deck log?

Mr. Sprague: Objected to; the witness is not called upon to account for differences between his log and the deck log.

A. I have nothing to do with the deck log, and they nothing to do with mine.

Q. Did you hear the captain say he was going to Sydney from Ponta Delgada? A. No, we
1433 would have gone to Sydney in case we found out we could not reach New York on account of head winds, or we were not making sufficient speed in the Gulf Stream.

Q. When you figure on how much coal is necessary, do you figure down to one or two tons and buy enough so you can get to destination? A. No, we always take two or three days more than what is absolutely necessary.

Q. Was that the case in this instance? A. Yes.

Q. You figured you had a surplus of 2 or 3
1434 days running to New York? A. Running to New York, if we had gone on good speed and everything favorable.

Q. Then the captain gave you the distance from Ponta Delgada to New York, did he? A. Yes.

Q. From that distance you figured out how much coal you would need? A. Yes.

Q. You don't recall what he told you the distance was? A. I don't recall now, there is a chart here.

Q. You have not those figures? A. No, not

with me, it is easy to reckon up if I knew the 1435
distance.

Q. You don't know where your memorandum is upon which you made those figures? A. No, just on a scrap of paper, so much coal.

Q. Did your estimate turn out rather close as to the amount of coal, 50 or 51 tons; is that about what you used? A. That is about it, 49 to 50 all the way to Sydney.

Q. So there was no mistake in your estimate, if there was any failure in the supply of coal? A. I can't quite grasp that question.

Q. I mean if the distances that were given to 1436
you were correct and you figured on the speed of the ship at 6 knots and a certain distance per day, and then you told the captain how much coal to buy, inasmuch as you did only burn about 49 or 50 tons, you should have been able to reach New York on your estimate? A. Easily.

Q. Do you know why you were not able to? A. We were in the Gulf Stream, that was preventing our speed 2 or 3 days, other days heavy weather.

Q. You had quite some bad weather? A. Although the engines are making even 6½ knots, the ship is only going through the water at a 1437
speed of 1 knot an hour with head winds.

Q. Did that happen often on this voyage? A. That happened various days.

Q. You had heavy head winds, bad weather? A. Head winds, and we were right in the Gulf Stream, passing through the Gulf Stream where it was against us; it knocks the speed off the ship.

Q. Can you account for the fact that other officers have testified that they had a perfect voyage? A. I can't; nothing to do with me.

1438 Q. When you say head winds and encountered bad weather, is that your personal knowledge? A. I said head winds, from personal knowledge.

Q. From on deck they have personal knowledge and anybody on deck should have observed it just as well? A. That is what they are there for, they are on deck all the time.

Q. After you left Lisbon, what watches did you assign? A. After we left Lisbon, the fourth engineer from the 8 to 12; the third engineer, 12 to 4; the second engineer, 4 to 8.

Q. As chief engineer, you did not stand any watch of your own, you simply were supervising
1439 the other watches? A. I was supervising the two new men, the third and the second engineer; I supervised their watches until they were absolutely familiar with everything in the engine-room.

Q. When you say supervised, what does that include? A. Supervised is making supervision.

Q. Are you constantly present all the time they are on watch? A. Constantly present, not all the time, until you see the man is all right; come up five minutes and go down again and see everything is all right, until you see that the man is
1440 absolutely trustworthy on watch.

Q. What experience, if any, had these men had with turbines? A. I don't know with turbines, they had been engineers during their life time since they were 20 years of age. I assume a man goes to sea when he finishes his time and then he goes to sea when he is 21 years of age.

Q. Simply because a man is an engineer does that, in your estimation, make him able to stand a watch over a turbine? A. It makes him able to stand a watch over a turbine.

Q. I believe you testified that a turbine in 30

seconds could be put entirely out of commission, 1441
is that correct, if the oil stopped? A. If the oil stopped running in 30 seconds, that would be absolutely useless.

Q. So, unless someone competent, who understood, was present every minute, you might have your entire machinery rendered worthless within that time? A. Yes, every turbine the same, no engineer is allowed to leave the engineroom for a second, even if he wants a drink he is not allowed to leave that engineroom on any ship; if he is called from the engineroom he is liable to be sent out of the engineroom altogether, or if anything happened he is liable to suffer punishment. 1442

Q. Didn't your experience with the result of the work of the Portugese engineers make it seem advisable to you to have two engineers on watch, changed from one in three to 6 hour watches? A. Not as long as the force is competent, I would not have anything to do with his watch; he was perfectly competent from Messina until we arrived in Lisbon; if he is British, American, or any nationality, if he is strange on any engine, even a land engine, he wants supervision.

Q. Why, after you had had this trouble with the engine, did you decide it was necessary to have 1443
two men on watch, change their watches to 6-hour watches? A. With only one engine, two heads are always better than one, far better supervision than previously; I had one engine and that was all; I was relying on one engine leaving Ponta Delgada.

Q. If you had had the regular engineers that you had on the way over, or engineers in whom you had a great deal of confidence, would you have taken the same precautions? A. Yes, after the breakdown.

1444 Q. Do you think with the system you had before, you would have the result you did have?

Mr. Sprague: Objected to; the matter is speculative.

A. The breakdown of any machinery is the act of God.

Q. Or negligence of the engineers? A. Oh, no.

Q. Or failure of knowledge of the engineers, we will say? A. Often machinery does break down through ignorance, but these engineers were perfectly capable of being in charge of those en-
1445 gines.

Q. If they had stopped the engines as soon as something went wrong with the engines, would the bearings have burned out as they did, if you had been on watch at the time this trouble occurred; do you think the turbines would have been broken and burned the way they were? A. Yes.

Q. You think that would have occurred? A. Yes, if the oil had stopped.

Q. Wouldn't you have noticed that the oil had stopped and stopped the engines? A. Yes, but it
1446 always takes some time to put the way off the engines, when the engine is going 3,200 revolutions, after the steam is shut off there is some way on; that turbine working without oil is bound to melt these bearings, thrust pads and things like that.

Q. When you stop an engine like that, can't you take the way off by reversing it? A. You can.

Q. That is, would you have to let your turbine run down until all the revolutions were off;

couldn't you have reversed your steam? A. There 1447
are various ways of stopping an engine, to stop a turbine, sometimes they have a vacuum breaker, if you vacuum on an engine that engine is bound to run, if there is vacuum on the engine.

Q. If the minute you noticed that the oiling had stopped steps were taken immediately, would the damage ensue anyway, the damage that occurred in this case? A. I didn't quite catch that.

Q. Your oiling system goes out of order, does it necessarily follow that your turbine will be burned out and your bearings burned out if detected immediately? A. Yes, if there is no oil 1448
going on the turbines, the turbine is finished.

Q. There is no way of preventing it, that is, by stopping the turbine or anything like that? A. If you stop the turbine it naturally does not require any oil at all.

Q. Can that be done? A. It can be done by what they call having a vacuum breaker.

Q. Did you have such a thing on your vessel? A. No.

Q. There is no way of preventing loss when the oiling system went out of order? A. There was not any way, I don't think there is any way on any turbine afloat, this is my own idea, 1449
this vacuum breaker, I have heard of it, I have never heard of it being on any turbine ship yet.

Q. You stated if you had a certain kind of packing you would have been able to make temporary repairs, although it would have taken a week; isn't it customary to have that packing on your vessel? A. No.

Q. Is that something new also? A. That is something new also, that has only been in vogue since Christmas, this was the first ship that was

1450 fitted with this type of packing by the Vulcan Iron Works; I think since, mostly every turbine belonging to the Shipping Board has had this same kind of packing fitted.

Q. You have certain packing, don't you, generally for extra packing as a matter of course? A. This is to eliminate all this spare packing; this packing is practically solid with the rotor, previous to this they used to have a kind of carbon packing, or soft packing, but they have done away with that altogether; it is a peculiar stuff going like that (indicating); this is the rotor, and this is the casing (indicating), that fits very
1451 close to the shaft and it is let into the rotor.

Q. I believe you stated that the third engineer complained for a long time about his head; did he ever give you any indication he was going to leave the ship before you got to Lisbon? A. Yes, he was going to leave at Marseilles, but we persuaded him to come to New York.

Q. You didn't think he was going to leave at Lisbon? A. I did not; if I thought all that was going to happen I would have got engineers in Marseilles.

Q. Did you pay the Portuguese engineers the
1452 regular wage or were you able to obtain them for less money? A. Regular British money.

Q. Did you pay them the bonus also? A. Bonus of £5 per month, but I don't think they signed on for £5 per month, that is only given gratuitously.

Q. I think you testified it would take about 3 weeks to get engineers from England? A. I think so.

Q. Did the captain ask you if you thought it advisable to get them? A. He didn't ask me,

but if we could possibly get engineers in a proper space of time we would get them, but if we could get Portuguese engineers certificated naturally, engineers are as good as any engineers. 1453

Q. Is that the gist of what the captain said; that is, did he tell you that, or is that just your understanding of the situation? A. My understanding of the situation.

Q. Did the captain tell you that he had a cargo of perishable nature? A. Perishable nature, yes, everybody knew that.

Q. Did you simply know that or did the captain say that was why he didn't want to wait for English engineers? A. My own personal knowledge; I knew perishable cargo would spoil if any undue time was taken with the voyage. 1454

Q. You didn't think undue time would be taken having to come out at slow speed, that would make any difference? A. I don't know what you mean.

Q. I mean instead of making 9 knots, you only made 6? A. After the breakdown?

Q. Yes? A. Of course, we never looked forward to breakdowns.

Q. In Ponta Delgada you didn't know any way to repair so you could come on at better speed? A. I knew how to repair the HP, but it would take a week to 10 days, as I mentioned. 1455

Q. You thought the difference between coming, in case you had been able to effect these repairs you would have made 9 knots, without the repairs 6, that would have increased the speed? A. Not to the same extent, on the ordinary speed 9 knots, on slower run 6½, that is 4 to 5 days; 2½ miles an hour difference.

Q. You said you were not very much afraid

1456 about leaving Ponta Delgada with only the low pressure because you had previously made a voyage of 4,000 miles and you were not, therefore, very concerned in a voyage of 1,600 miles to Sydney? A. No; I knew it could be done with perfect ease.

Q. Why did you say voyage of 1,600 miles to Sydney, your log states that you were going to New York? A. Yes, but I didn't say when, that is only my own, nobody asked me anything about Sydney before, I knew we had done this distance, 1,600 miles; I am never concerned, I would not be concerned going 10,000 miles.

1457 Q. You didn't figure on enough coal to take you to Sydney, you figured on enough to take you to New York? A. To take me to New York.

Q. And you also figured you had sufficient for 3 days extra? A. Somewhere up there, 2 to 3 days.

Q. Do you know what the length of voyage from Ponta Delgada at 6½ knots an hour to New York should be in days? A. I should think it would be about 9 days.

Q. You figured you had 12 days' supply of coal? A. Yes.

1458 Q. Do you remember where you were when you got the orders to bunker at Halifax instead of Sydney? A. I can't say that, where we were.

Q. I mean were you at sea, or were you at Sydney, or were you at Ponta Delgada? A. It was somewhere between Ponta Delgada and New York, when we got that message.

Q. Was it a wireless message? A. A wireless message.

Re-direct examination by Mr. Sprague: 1459

Q. You didn't receive the wireless message, did you? A. No, the wireless operator received that.

Q. What is the usual slip of your propeller in common weather without currents? A. Without currents 10%.

Q. Will you turn please to your log and state the slip per day on this trip from the time you left Ponta Delgada to the time you arrived at North Sydney, just read it right into the record? A. July 11th, 25% slip; the 12th, 27.7% slip; 13th, 12.8%; the 14th, 18.1%; the 15th, 34.1%; 1460
that was entering the Gulf Stream; the 16th, 34.8% slip; the 17th, 16.8% slip; the 18th, 10% slip; the 19th, 10.4%; on the 20th, 31.8%; the 21st, 44.7%; then we arrived.

Q. Does this slip of the propeller indicate anything to you, the currents and the weather, etc? A. Yes, if the engines are making a speed of 8.5 per hour and were only going through the water at 4.7, that shows it is nearly 50% slip.

Q. When you find a slip of 47%, as you had in one place, that means you are only making about half the indicated speed? A. About half the indicated speed. 1461

Q. And was it your slow speed that caused the excess coal consumption on the trip over from Ponta Delgada? A. No, the engines were making the same, practically the same revolutions right from leaving Ponta Delgada to Sydney, but through the water sometimes we were only going a third of the speed, sometimes 7/8, sometimes 3/4, as the slip shows.

Q. Is that the reason why you found you were not going to have coal enough to get to New York on? A. That was absolutely the reason.

1462 Q. This fin packing, have you ever seen any of that taken to sea in spare blocks to be used? A. It is not in blocks.

Q. How does it come? A. In rings and halves.

Q. Have you ever seen any in an engineroom? A. Never saw any in an engineroom in my life and I will guarantee there is not one engine running at the present time that carries it.

Q. That has to be set on grooves on the shaft? A. Set on grooves on the shaft.

Q. Could that be done in the engineroom? A. Well, it is possible but it would take an awful length of time, a week.

1463 Q. When you said you could have repaired the HP engine if you had that, you didn't intend to mean that such things were ordinarily carried in an engineroom and you were deficient in not having it? A. No, I knew they never had it.

Q. Was there any packing at Ponta Delgada? A. No.

Q. Was there any way of repairing at Ponta Delgada? A. Not under any consideration.

Q. Do you know that the captain kept these doctors' certificates? A. I don't really know, but it is usual for the captain to keep them.

1464 Q. They are signed off before the Consul? A. Always.

Q. Doesn't the consul keep the papers? A. I think a copy, I should think the captain would have to copy them, on account of showing his orders.

Q. You don't know yourself? A. I don't know myself, that is no business of mine.

Q. When you say that 30 seconds' suspension of lubrication of turbines will burn out this white metal, you don't mean that 30 seconds of suspen-

sion of the pump will burn it out, do you? A. 1465
No, 30 seconds of the oil, of the time the oil not being on the white metal.

Q. You have the storage tanks on the top to keep on lubricating? A. Yes.

Q. That is the purpose? A. That is what it is for, the gravity system.

Q. Do you know whether there is any such thing as a vacuum breaker? A. I have never seen them, but heard of them.

Q. Where? A. Often heard speak of it, engineers discussing.

Q. Did you ever hear of one being fitted on a 1466
ship? A. Never.

Q. You are speaking of something that might possibly be tried? A. Might possibly, or could be done.

Q. You don't know whether it had ever been done? A. Never heard of it.

Q. Mr. Single suggested you might stop by reversing; if you had done that, you would have your astern turbines going, wouldn't you, if there was no oil there, they would be burned out—either way they run, no oil, they will be burned out? A. Yes.

Q. So it makes no difference whether they re- 1467
verse or you let them die? A. It does not make the slightest difference, if there is no oil there the metal is bound to melt.

Q. How old was this Scotch fourth engineer? A. 28, I think.

Q. An intelligent fellow? A. Very intelligent.

Q. You don't know whether he had ever been on turbines or not, do you? A. I am not certain.

1468 *Re-cross examination by Mr. Single:*

Q. Have you ever been over the voyage before from Ponta Delgada, or the islands thereabouts, to New York? A. Not from Ponta Delgada to New York, no.

Q. You were aware that there was such a thing as a Gulf Stream? A. I was aware of it.

Q. Do you mean to say you didn't make any allowance for the slip on encountering the Gulf Stream? A. Those are 2 or 3 days extra coal we take for that.

1469 Q. Did your slip amount to that? A. No, if we had gone on with the speed we intended when we took the coal we should have reached New York easily.

Q. When you figured at Ponta Delgada, did you figure on actual speed, did you figure you were making 6½, or did you figure you were making 6½ less slip? A. Making 6½ right through without any accident happening, always arranged for about 10% slip, sometimes get adverse and sometimes following wind which helps us along.

Q. You figured for 10% slip? A. 10% slip.

1470 *By Mr. Loughran:*

Q. The reverse in a turbine, then, means something different from introducing steam in simply another direction to stop the rotating in the propellers? A. Yes.

Q. You set up entirely different works? A. Yes, you put steam into the other end to stop her, it stops and goes astern.

Q. There is one point at which after the steam

has been introduced the wheels stop, isn't there? 1471
A. There is a point if you can just catch it on the second.

Q. Then the reversed acts as a brake on the forward motion? A. Yes, the astern motion acts as a brake.

Re-re-direct examination by Mr. Sprague:

Q. When you reverse, at the time your turbines are going ahead, you have two forces working against each other? A. Yes, the force that will be most, the turbine will be the other way.

Q. Does that make more pressure or less pressure when two things are working together? A. 1472
Less pressure, the one that exceeds the other, if the power of the astern exceeds the head, naturally, the LP is going to rotate the turbine.

Q. Suppose you are going ahead on the LP, and you want to stop her and you reverse, put your steam into your astern LP, you have got pressure on both ahead and astern bearings, haven't you? A. Yes.

Q. Pressure on two bearings instead of one? A. You mean on the thrusts?

Q. Yes, on the thrusts? A. No, it is just per- 1473
fectly central; if these two are equal there is neither pressure on astern or ahead, in between the thrust collar on the turbines on each side, are these HP and LP thrusts, there is always about twelve one-thousandths oil clearance given, that is six-thousandths between the collar and the HP. When the steamer is going ahead naturally all the weight is on the HP thrust, if going astern it is on the LP, if it is perfectly equal in pressure

1474 on that rotor, it is perfectly central between the two thrust pads.

Q. But chief, the point is this: assume a place where the lubrication of oil had stopped, you had shut off the steam on your low pressure going ahead turbine, you want to stop that as soon as possible and you then introduce the steam in your astern low pressure turbine; you have got thrust pads on both the go-ahead and the astern, haven't you? A. Yes.

Q. If there is not any oil going through the system you are likely to burn out the thrust pads on both the astern and the ahead turbines by doing that? A. Yes, you are.

1475

Q. Whereas, if you let your engines die down without putting in the reverse, you are only burning out one set? A. The one it is against.

Q. By reversing you are burning out both? A. Going against the astern, if there is no oil, you will burn that out as well.

Q. Burn out 2 sets instead of one? A. Yes.

1473

Deposition of T. C. Warkman.

1477

UNITED STATES DISTRICT COURT,

DISTRICT OF NEW JERSEY.

CITRO CHEMICAL CO. OF AMERICA,
Libellant,

—against—

THE STEAMSHIP "WILLDOMINO."

CHARLES P. PFIZER & COMPANY,
Libellant,

—against— 1478

THE STEAMSHIP "WILLDOMINO,"
And cross-libel.

Depositions taken in behalf of the *Willdomino* at the office of Messrs. McLean, Burchell and Ralston, in the City of Halifax, Province of Nova Scotia, Canada, the 1st day of December, A. D. 1921, pursuant to consent.

APPEARANCES:

1479

MESSRS. HUNT, HILL AND BETTS (MR. SPRAGUE) for claimant and cross-libellant.

MESSRS. HARRINGTON, BIGHAM AND ENGLAR (MR. O'NEILL) for libellant and cross-respondent.

IT IS STIPULATED that the testimony may be taken by a stenographer; signing, filing and certification being waived; stenographer's fees to be taxable.

THOMAS C. WARKMAN, being duly sworn and
1480 examined as a witness for claimants, testified as follows:

By Mr. Sprague:

Q. Are you connected with the Salvage Association of London at its Halifax office? A. I am.

Q. What is your connection with them? A. Chief Surveyor of Eastern Canada.

Q. Did you occupy that position in August, 1920? A. Yes.

Q. And July, 1920? A. Yes.

Q. At that time was there a survey made by
1481 your Association at Halifax of the *S. S. Willdomino?* A. Yes.

Q. By whom was it made? A. P. W. Wilson, one of my assistants.

Q. How many copies of that survey were made? A. We usually make six—the original and five copies.

Mr. O'Neill: I move to strike out the answer as not responsive; the question is, did he know how many were made, and he tells what usually are made.

Q. How many at this time? A. Six is the
1482 number that is always made.

Mr. O'Neill: I move to strike out.

Q. Is it your impression that you made the same number as usual? A. Yes.

Mr. O'Neill: I move to strike out.

Q. What was done with the original certificate? A. It goes to London.

Mr. O'Neill: I move to strike out.

Q. Did you keep a copy of that certificate on your files? A. Yes. 1483

Q. I show you a paper and ask you to state what it is.

Mr. O'Neill: I object to the form of the question on the ground this paper, if it is competent, will speak for itself without the witness telling us what it is.

Q. Answer the question, please. A. This is one of our formal reports of survey on the *Willdomino*, on account of the disaster of July 24th, 1920; our regular form of survey. 1484

Q. Do you recognize the signature attached to that paper? A. Yes.

Q. Whose is it? A. P. W. Wilson, my senior assistant.

Q. And he is the one you mentioned made the survey? A. Yes.

Q. Have you compared that paper with the copy on your files? A. No, I have not, but I know it is the same thing; I have not compared this one with it.

Q. You have looked at the two together, have you not? A. I could not say that.

Q. You are certain of the signature, however? 1485
A. Absolutely, positively, the same as my own.

Q. I understand you to say it is a copy of the *Willdomino* report? A. Yes, a copy of the original sent to London.

Mr. Sprague: I offer it in evidence.

Mr. O'Neill: I object, first, on the ground it is in no way binding on the libellants I am representing in this suit; secondly, on the ground the proper way of

1486 introducing this survey would be to produce the man who made it for cross examination as to the contents of it; and, thirdly, on the ground that it is incompetent, irrelevant and immaterial; and I further state that the right is reserved to make a motion to strike it out at the end of the trial.

Q. Where is Mr. Wilson now? A. Montreal, as far as I know; he is in the vicinity of Montreal.

1487 Mr. Sprague: I offer the paper in evidence.

(Marked Claimant's Exhibit "V.")

Q. Did you personally have anything to do with this survey on the *Willdomino?* A. Simply in the matter of reviewing the case with Mr. Wilson; these matters are all reported to me.

Q. You went over the facts with him? A. Yes.

1488 Mr. O'Neill: I object; it is not binding on us in any way. Without prejudice to any rights I am reserving under my objection heretofore made to this survey, I want to ask Mr. Warkman a few questions about it.

Cross examined by Mr. O'Neill:

Q. There is a statement in here; may I ask who was Mr. Wilson representing at the time? A. The underwriters.

Q. What underwriters? A. I cannot tell you;

underwriters on the ship; hull underwriters— 1489
whether one body or another body I don't know; whoever they may be.

Q. As a matter of fact, was this vessel carrying the hull insurance at Lloyds? A. I could not tell you that, I don't know; I assume she probably had a heavy amount.

Q. Do you know who Lloyds' agent was at that time in Halifax? A. Pickford and Black.

Q. And they were the people who called the survey? A. If it states so there.

Q. It so states here, at the request of Pickford and Black; what is the meaning here of this word inserted in parenthesis at the end of the third line below the word "recommended"—I am referring to the word "weight." 1490

Mr. Sprague: I object to any testimony as to the meaning of terms; the document is written and speaks for itself, and question as to meaning is for the Court and not for this witness; and also it is not cross examination.

A. The allusions to cargo here are all in relation to taking weight from the forward end of the ship and putting it on aft so as to raise the 1491
bow up.

Q. You personally don't know exactly in what plates the damage was? A. No; I don't think anybody did.

(This concluded the evidence of Thomas C. Warkman.)

(At the request of Mr. O'Neill, Mr. Moon, one of the witnesses, was asked to retire during the examination of Captain Neil Hall, and he accordingly did so.)

NEIL HALL, being duly sworn and examined as
1492 a witness for the claimant, testified as follows:

By Mr. Sprague:

Q. What is your present position? A. I am Port Warden of Halifax; I am agent surveyor for the American Bureau of Shipping, and the British Corporation of Glasgow; and I now hold the position representing the American Marine Insurance Syndicate, now the American Marine Salvage Association.

Q. How long have you been Port Warden of Halifax? A. Fourteen years.

1493 Q. Prior to that time what was your business? A. Master Mariner.

Q. And you had been going to sea all your life practically? A. Yes, steam from 1886 until the time I stayed ashore, and Master in sailing ships from 1878.

Q. As Port Warden of Halifax how many vessels approximately do you survey in a year? A. For damage under which the vessel herself is damaged about fifty, average, and for hatch survey, and ordinary, probably about the same—fifty more.

1494 Q. By whom were you appointed Port Warden? A. Dominion Government: Minister of Marine.

Q. Are your duties prescribed by Statute? A. They are.

Q. I show you this paper—you know what it is? A. Copy of the Port Wardens' Act.

Q. That is the Act under which you were appointed and under which you perform the duties of your office? A. The only change has been a revision in fees, otherwise the Act is the same.

Mr. Sprague: I offer it in evidence. 1495

Mr. O'Neill: I object; it is incompetent, irrelevant and immaterial as to what the Port Warden's duties were.

(Document marked Claimant's Exhibit "W.")

Q. Does Claimant's Exhibit "W" also prescribe your authority? A. Yes.

Q. On July 27, 1920, did you attend a survey on the *Willdomino?* A. I did.

Q. Where was the vessel at that time? A. Lying at anchor in Halifax Harbor. 1496

Q. Did any one accompany you on board the vessel? A. Yes, there were different surveyors: Mr. Wilson, I don't know if Mr. Moon went off on that day, but Mr. Wilson did.

Q. What is your best recollection as to whether Mr. Moon accompanied you or not? A. I would not be prepared to say.

Q. In what capacity did you attend on this survey? A. As a disinterested party requested by Pickford and Black, the agents for the ship.

Q. Did you attend in your capacity as Port Warden? A. Yes. 1197

Mr. O'Neill: I object as leading and suggestive.

Q. In your capacity as Port Warden whom did you represent on this survey? A. I was requested by Pickford and Black to go aboard and make a survey for the interests of all concerned.

Q. In what condition did you find the vessel when you went on board? A. Fore peaks full of water; sounded and found eighteen feet in

1498 No. 1 hold; all other holds and bilges dry; draft of water 19′ 6″ forward, 13′ 6″ aft. All after ballast tanks and peak tanks full of water; they were filled with water for the purpose of tipping her.

Mr. O'Neill: Are you reading from some document in front of you? I object to it. Your testimony as it appears on the record would show you were testifying under oath from your recollection.

The Witness: I am testifying from the actual survey.

1499 Mr. O'Neill: I object until the paper is properly qualified on the record.

Q. At the conclusion of your survey did you issue a report with recommendations? A. I did.

Q. I show you this paper and ask if that is the report. A. That is a copy of my original survey.

Q. That is your signature on it? A. Yes.

Q. And your seal? A. Yes.

Mr. Sprague: I ask to have that marked for identification.

1500 (Document marked Claimant's Exhibit "X" for identification.)

Q. Can you from your own recollection, without refreshing your recollection by looking at the report, state exactly what you found on this vessel, or do you desire to refresh your recollection from your report? A. I don't need the report to say I found No. 1 hold full of water, but if you ask me how many feet I have to refer to my record to tell you.

Q. To give details you would like to look at the report? A. I would. 1501

Q. In answering my questions if you are not able to give definite facts from your own recollection, you may refresh your recollection by looking at this report marked Claimant's Exhibit "X." Did you see the officers of the ship when you were on board? A. Master and different officers; I always consult with the master.

Q. Were you or not informed as to what cargo was in No. 1 hold? A. After we brought her into the wharf.

Q. Did you or not receive a copy of the stowage plan? A. I seen a copy of the stowage plan. 1502

Q. Did you know what cargo was in No. 1? A. I understood acid.

Q. What kind of acid? A. All I knew it was acid.

Q. Did you know in what condition it was? In what form? A. In crystals.

Q. When you were on board the ship and made the survey on the 27th July, did you open up the deck hatch of No. 1 hold?

Mr. O'Neill: I object as leading.

Q. Did you or not? A. We opened the upper hatch. 1503

Q. What did you see? A. She had cargo in there; there was nothing to be seen through the hatches until the cargo was moved; she had cargo in between deck.

Q. Could you see to the water at that time? A. No.

Q. Was there or not a diver along with you when you made that survey? A. The diver made a survey the first day.

1504 Q. Did you see a copy of that survey? A. I did not.

Q. Did you make certain recommendations after making this survey? A. I recommended her to be brought into the wharf and cargo discharged.

Q. Make any inquiries as to dry dock?

Mr. O'Neill: I object as leading and suggestive. I think the witness should be called upon to say generally what he did in regard to that cargo.

1505 Q. What did you do? A. The ship was brought into the wharf and after we seen the cargo plans and the nature of her cargo throughout, and made inquiries, we found the ship could not be dry docked at Halifax.

Mr. O'Neill: I object, and move to strike out that part "and made inquiries and found the ship could not be dry docked at Halifax."

Q. What inquiries did you make? A. We asked the dry dock if they could take the ship
1506 and when, and their time was so long before they could take the ship in, and we considered with the No. 1 hold having corkwood in it, solid full of corkwood on top of this acid or casks, the corkwood was solid up against the deck, there was no danger in sending the ship, if we could get her in trim, forward to New York, which would be far in excess of time of anything we could handle her.

Mr. O'Neill: I move to strike out the answer on the ground the witness ought to

give the conversation between the dry dock people and their answer, rather than the conclusion of the witness. 1507

Q. Did you call up the dry dock yourself? A. No.

Mr. Sprague: Then I consent to that.

The Witness: I have no authority to ask the dry dock if they can put a ship in.

Q. To what dock was she taken? A. Furness-Withy.

Q. Did you go on board at that dock? A. I did. 1508

Q. How many times? A. Four or five times a day until she was complete.

Q. What did you do yourself personally during that time? A. I examined as they were taking out the cargo from No. 1 and No. 2 and seen if there was any damage to the cargo and had it restowed in the after holds where there was plenty of room to take it.

Q. What cargo did you take out of No. 1? A. Oranges and lemons principally.

Q. Where was that stowed? A. No. 1 'tween decks. 1509

Q. Did you take all the cargo out of No. 1 'tween decks? A. It was clean.

Q. Was there a hatch on between decks and the lower hold of No. 1? A. There was.

Q. Did you order them to open that? A. They were opened.

Q. Were they opened in your presence? A. No, but I seen them after they were opened.

Q. State what you observed after this hatch was off? A. The pressure of water raised the corkwood so solid up underneath the combings of

1510 the hatch that some of the bales were bent almost double; those that caught with the water under the combing from the pressure were bent thirty degrees.

Q. Could you or not see the water? A. We could see the water then.

Q. Was the water or not up to the hatch? A. Very near.

Q. How far from the hatch? A. I didn't measure; there was eighteen feet of water in her.

Q. Did you take soundings? A. I took the soundings myself.

1511 Q. Could you see the casks of citrate of lime? A. No.

Q. Could you see any casks in No. 1 hold? A. Never seen a sign.

Q. Could you say whether or not these casks were under water? A. I am sure they were.

Q. Why do you say you are sure? A. Because the water was nearly to the top of the corkwood, up to the hatch.

Mr. O'Neill: I object, on the ground the witness has not said he could see the top of the water.

1512

Q. You could see the top of the water? A. Yes.

Q. Did you attempt to take any cargo out of No. 1 lower hold? A. Not at all.

Q. Was it suggested you should take cargo out of No. 1 lower hold? A. It was utterly impossible to do it without cutting it up.

Mr. O'Neill: I move to strike out; it is clearly not responsive.

Q. Was it suggested you take any cargo out 1513
of No. 1 lower hold? A. No; I never suggested; we looked at it and were sure it could not be moved without cutting it out.

Q. No one suggested in your presence? A. No.

Q. When you say "we" to whom do you refer? A. Mr. Wilson and myself; and I suppose the stevedores probably were there.

Q. In your opinion was it possible to discharge that cargo from lower No. 1 hold before the ship was put in dry dock? A. Utterly impossible without you cut it all to pieces; all the 1514
corkwood would have to be cut out before you could get at anything else.

Q. Even though you cut the corkwood out do you think you could have got the other cargo out of lower No. 1? A. You would have to do it with a diver, and what you would find I could not say.

Q. I show you Claimant's Exhibit X marked for identification, and ask you what that paper is? A. This is my Port Warden's survey and report.

Q. And that was made after all your surveys and all the time you were on the ship? A. Yes.

Q. Is that an official document? A. It is; that 1515
is a copy.

Q. Where is the original? A. The original was struck from that.

Q. And it is filed in some place? A. At my office.

Q. As part of your records? A. Yes.

Mr. Sprague: I offer Claimant's Exhibit X in evidence.

Mr. O'Neill: I object to the question some time back asking whether or not this

1516 is an official document and move at this time to strike out the answer given to that question. I object to the offering of this paper on the ground it is in no way binding on the libellants I am representing here.

Q. Will you state in general just what was done to this ship under your inspection and that of the other surveyors before she left on August 3rd? A. She was drawing about six feet by the head when she came in; that is from memory; and we started to discharge the cargo from No. 2, No. 1 'tween decks, No. 2 'tween decks, and
1517 lower hold, and loaded into the after part of the ship to tip her; at the same time we recommended that sand be placed on the after deck to assist in tipping her. This was carried out and as a further precaution we cleared the forward bulkhead and forward end of No. 2 hold, the cargo away from it, and placed in wooden shores to support the bulkhead in case of accident.

Q. The bulkhead at that time was showing no effects of leakage in any way? A. There was a few boxes of wet lemons against the bulkhead but this was caused only by sweat of the holds.
1518 After completing the shoring up of the bulkhead we also put in a special pump and fitted it up in case of any accident on the voyage to New York. We got the ship trimmed and down by the stern and the work was carried out and completed from the 28th July, and on the 2nd August the vessel was ready to sail.

Q. Were all your recommendations carried out to your satisfaction? A. They were.

Q. In your opinion as Port Warden of Halifax was it for the best interests of both ship and cargo that this vessel should proceed to New York for dry docking and repairs?

Mr. O'Neill: I object; it is incompetent, irrelevant and immaterial, and calling for conclusion on the part of the witness; and also asking this witness to determine probably one of the vital issues for the Court to determine in this case. 1519

Q. Please answer the question. A. It certainly was.

Q. Is that opinion based upon your experience as a surveyor of ships and cargo during your incumbency of these offices as well as upon your experience as a master mariner? A. I always take into consideration the interests of all concerned and recommend what I consider is the best to be done, and this was a case that we were compelled to do or hold the vessel here for a month, with that cargo in her. 1520

Cross examined by Mr. O'Neill:

Q. What you really did to No. 2 bulkhead, the bulkhead between holds 1 and 2, was to shore it? A. Yes.

Mr. O'Neill: It is understood my examination of any of these exhibits I have objected to, and going into matters over my objection, will not in any way interfere with my objection in the original sense. 1521

Q. This survey of yours marked Claimant's Exhibit X correctly sets forth what you did in connection with this disaster at the time the vessel was at Halifax? A. Yes.

Q. It states fully and clearly just exactly what was done and the circumstances under which you

1522 acted, that is true, too? A. Yes. I suppose I have given you a little more detail under inquiry than what may be in the survey.

Q. Do you know whether or not any of the damage to the skin of this vessel, caused by stranding or otherwise, was aft of her fore peak or collision bulkhead? A. No, I could not say, only that No. 1 hold was full of water.

Q. You know the vessel had a collision bulkhead? A. Yes, peak bulkhead; that they all have.

Q. Know the fore peak was filled also? A. Yes.

1523 Q. Fore peak and No. 1 hold were filled? A. Yes.

Q. And you are not prepared to say whether any of the injury to the skin of the vessel extended aft of the collision bulkhead? A. I could not say.

Q. Further, you are not prepared to say whether the damage was confined to a point forward of the collision bulkhead and that the collision bulkhead had failed to hold? A. I cannot say that; that is what I sent her to New York for to find out.

Q. You have given us the trim of this vessel
1524 and her draft fore and aft when she came in? A. Yes.

Q. Can you give us her draft fore and aft when she went out after you had trimmed her? A. 12′ 10″ forward, 22′ 6″ aft.

Q. What do you say it was when she came in? A. 19′ forward and 13′ 6″ aft.

Q. When you put that forward and aft, you take it by stem and stern posts? A. Yes.

Q. What would you say her draft was going out abreast of No. 2 bulkhead, that is between No.

1 and No. 2 holds—approximate that for us? A. I suppose somewhere about 14′. 1525

Q. You might take the entire difference 6′ 2″.

Mr. Sprague: I object to any statements unless the witness knows.

Q. He is an expert and I ask him to approximate for us; when he said the draft of this vessel at her stem going out was 13′ what would he say it was, considering length and size of the vessel as he saw her, what would he say it was approximately abreast of the bulkhead between her No. 1 and No. 2 holds, or which you describe as No. 2 bulkhead? A. About 14′ probably; you would have to get the line of the ship. 1526

Q. When you say that her draft on entering Halifax harbor was 19′ at her stem, what would you put it at that time abreast of No. 2 bulkhead? A. She ought to tip in the same proportion, that would be about 18′ approximately.

Q. When she came in here and you made an examination of this vessel you are satisfied, of course, that the water in No. 1 hold was flushing even with the water outside the ship, are you not? A. I think so.

Q. As a matter of physics that is a fact? A. I would think so. 1527

Q. You say that the water in the lower hold when she came in, I think you put it at 18 feet? A. Yes.

Q. What would you say the water in that hold would be when she went out? A. I don't think over 13 or 14 feet.

Q. Speaking now all the time of No. 1 hold? A. Yes. I might tell you there was a mistake in the tipping of her.

1528 *By Mr. Sprague:*

Q. You think she was tipped more than necessary? A. Yes, to get the sand—you had to rush the thing, and the sand was put on the deck while the cargo was being handled; then it was found after we got the cargo that had been put in the warehouse put back into No. 5 it tipped her more than we expected.

By Mr. O'Neill:

1529 Q. Your survey states you went there at the request of Pickford and Black. A. Yes.

Q. At any time you were down there doing any work on this matter, who, so far as you saw, were the people concerned in the getting of the ship out of Halifax, or giving her such attention as you thought she needed? A. Pickford and Black.

Q. Who there? A. Mr. Hensley.

Q. Who else? A. Mr. McCaughin, another member of the firm, Chief Clerk; he always goes around and looks at the work going on; that would be all from the office.

1530 Q. Who else came from any other source—anyone representing the ship besides the master? A. Not that I know of.

Q. Any other surveyors there? A. Mr. Moon and Mr. Wilson.

Q. The record now shows who brought Mr. Wilson there, in reading the headlines of your survey I am led to ask is it not a fact Pickford and Black requested you to go there? A. Yes, or the master.

Q. Maybe the master requested you to go there? A. Yes.

Q. It says here Pickford and Black, Ltd., agents; do you know if they were the agents for that steamer? A. They were the agents as far as I knew. 1531

Q. On your survey you have a note they called you to take the survey and so far as you know the master joined in the request for you to go there and make the survey? A. Correct.

Q. When it comes to the question of fees here in this case, were you engaged by the agents and master as an independent surveyor? A. I was, as Port Warden; the Port Warden is always an independent surveyor.

Q. Who paid you for these services? A. The ship. 1532

Q. The master, as part of his disbursements, paid you? A. Yes.

Q. Did the government pay you anything? A. The government paid me nothing; they don't pay me for anything I do.

Q. You are paid by fees? A. Yes.

Q. In this case your fee came from the ship? A. Yes.

Q. Can you give me an estimate, and it will be approximate only I expect, of the area of that hatch opening down through lower No. 1 'tween deck to lower No. 1 hold, that you saw open there? A. No. 1533

Q. Can't you give me an approximation? A. Might be 18 by 10; 20 by 14.

Q. What would you say the least it was, approximately? A. Probably 18 by 12; there are no two ships have the same hatches.

Q. Regardless of the exact size of the area of the hatch opening there was, can you let us have the size of one of these bales of cork that was

1534 stowed under there? A. They would measure, I suppose, about twelve cubic feet, or fifteen.

Q. What would be the size of the largest face of the bale in square feet? A. It would measure more than that; about 4′ 6″.

Q. You have given us the longest face of any of the bales and you say approximately 4′ 6″. A. Yes.

Q. What would you say the longest width of a bale would be of that same face you have measured the length as 4′ 6″? A. I think they would come pretty nearly two feet the other way.

Q. So there would be approximately 4′ 6″ by
1535 2 feet on the face? A. Yes.

Q. And the third dimension would be about two feet? A. About the same; about 17 cubic feet.

Q. Can you tell us what the height of the hatch combing was from the surface under the 'tween deck to the top of the hatch combing? A. No, I cannot.

Q. Can you approximate it? A. It is a great deal of guess work on that.

Q. You have a mental picture in your mind to give us an estimate of what it was? A. I cannot
1536 give it to you because I have been aboard forty ships since then.

Q. Are they not usually the same? A. You know different to that; I have been aboard one hundred holds since that.

Q. Are they not about the same depth? A. No; that one might be 14 or 16 inches or two feet, according to how high above the main deck.

Q. Were you there when the hatches or strongbacks were removed from that hatch going from the 'tween decks of No. 1 into the lower hold of No. 1? A. I don't think.

Q. You don't know what condition they were in when the cargo was taken off them? A. No. 1537

Q. Did you actually see any of the water in No. 1 lower hold? A. I did.

Q. Did you see it? A. Yes.

Q. You saw it there? A. Yes.

Q. Will you describe to us in detail here just exactly what you did see and everything you saw when you went down for the first time and looked into that open hatch and saw cargo there; tell us the shape of the cork and what else you saw there? A. I could see the water and the cork jammed up under the combings.

Q. You saw water in that open hatch? A. I did. 1538

Q. On top of the cork? A. No.

Q. Where was it? A. Under the cork; it was not on top of the top cork or it would be between decks.

Q. You saw the water was flush with the lower part of the combing going into the lower hold? A. It was up, I would say, within the top tier of the cork.

Q. It was up within reach of the bottom of the top tier of the cork? A. Yes.

Q. Was it any higher? A. I would not say it was. 1539

Q. If that is the case, the water would be approximately two feet below the bottom of the combing? A. Yes, if you take it that way; I am not saying it was.

Q. Where could you see down through the cork to see the water? A. You could see four feet.

Q. How? A. The cork is in bales and you could see between bales.

Q. How far apart were they? A. Stow them as tight as you like there is always a crack.

1540 Q. And you could see between these cracks of the bales or the space between them a distance—— A. I could see the water.

Q. And you believe it was about two feet below the surface? A. As far as I remember.

Q. And you could see four feet? A. I believe I could have seen four feet; I have no doubt of that.

Q. Are you able to tell us how high, or how deep the pile of cork was on top of this citrate? A. I have no idea.

Q. You have no idea how much cork would have to be removed? A. No, I know by the
1541 cargo plans she was supposed to be stowed full of cork but I don't know how many.

Q. But the number of feet it was from immediately underneath the 'tween deck down through the cork in the lower hold until you came to the top of the citrate, you don't know? A. No.

Q. So when you were making your recommendations you had no idea how much cork would have to be removed to get to the citrate? A. Except by the cargo plans.

Q. The cargo plan didn't give you that? A. It said No. 1 was full of cork.

1542 Q. Did the cargo plan say anything about citrate? A. Yes.

Q. It said it was there? A. Yes.

Q. The cargo plan is drawn to scale? A. No.

Q. It could not show you how great a distance it was through the cork to get to that citrate? A. No.

Q. The plan didn't convey anything to your mind any more than to tell you there was a quantity of cork first under the deck and below that there was citrate; beyond that you had no in-

formation? A. No; you are trying to get some- 1543
think different—just reverse that.

Q. What did it show you in feet, if anything? A. I didn't measure; it showed these casks of citrate were in the bottom, and the balance of the hold, which was the larger part, was filled with cork.

Q. Do you recall what it was was taken out of No. 1 hold in that upper 'tween deck and moved back? A. There was cases, lemons, and to the best of my knowledge now—I can tell by——

Q. When you opened the 'tween deck, you 1544
didn't remove anything from the lower hold at all of No. 1? A. No.

Q. And you saw the cork bulging through there right up through the open hatch? A. I didn't say that; I said jammed up; it was buckled under the combing.

Q. Would you say in the middle of the open hatchway approximately 18 by 12 square the cork continued to keep an open surface across the opening of the hatch? A. It came up as far as the water brought it.

Q. Would it make an effort to come up further than the water by reason of the fact there was 1545
supposed to be cork underneath it? A. I don't think it would come any further; if you have two bales on top of each other the bottom one will go under if you keep them from upsetting.

Q. You say here that on report of submarine diver, in your survey, Claimant's Exhibit X, "I therefore recommend, and so on—on report of the submarine diver regarding damage to the bottom and taking into consideration the perishable nature of the cargo, etc.," what did you

1546 mean by the perishable nature of the cargo? A. The fruit.

Q. Then you go on to say, "and no dock being available at this port for the purpose of docking the vessel and after consulting all the parties interested"; by all parties interested, tell us who you consulted with? A. The different surveyors, and the agents, and master of the ship.

Q. The master of the ship; anyone representing the agents, Pickford & Black's office? Mr. Wilson representing the London Salvage for the hull; who else? A. I don't know if Mr. Moon came in on that or not.

1547 Q. After consulting these, then this recommendation was made? A. Yes.

Q. As you recall it, the vessel did have a considerable amount of lemons on board? A. Yes.

Q. And they were perishable? A. That is right.

Q. You don't know of anything else perishable on board that might be damaged by delay that was called to your attention? A. No, I think we practically considered this citrate would be a total loss.

Q. Right then and there, and you would not consider that as perishable for that reason? A.

1548 Yes. If there was anything to be saved, it would be saved quicker by going to New York.

Q. The lemons were perishable and should be got on? A. Yes.

Q. And there was nothing else perishable and if any damage had come to this citrate, or acid as you call it, in the lower No. 1 hold, it had become a total loss and there was no need to consider it? A. I won't say a total loss, it was damaged and we could not do anything here toward saving it; if there was any chance of salv-

ing anything else in No. 1 it could be done better 1549
by forcing her from here.

Q. You don't know anything of the properties of citrate at all, as regards the condition of it being damaged after being submerged? A. No.

Q. Have any opinion on that at all? A. No, no one seen it.

Q. Did anyone present at that time know anything about—or did any of you write letters on the subject, and express yourselves to the effect that the difficulty was these lemons were perishable and should be got away? A. I don't know of anyone writing letters.

Q. It was your view the lemons were perish- 1550
able? A. The cargo was perishable and we could not keep her here.

Q. What else was perishable? A. Fruit.

Q. Dried fruit would be? And some cases of embroideries in the upper 'tween decks, that you moved; the embroideries would not be perishable so long as they were not wet? A. It was not No. 1 that was perishable, it was all over the ship.

Q. You were concerned primarily about the lemons and dried fruit? A. We considered the cargo throughout the whole ship was perishable. 1551

Q. Did you know anything about whether this citrate was perishable or not? A. No.

Q. Do you know now? A. No, no more than common sense tells me; it was a citrate.

Q. And getting immersed it would become a total loss? A. It would melt to some proportion, and the longer it laid the more it would melt.

Q. And the greater the loss would be? A. Yes, and that is our idea in getting the ship away.

Q. Are you sure you were told you could not

1552 get a dry dock inside of four weeks; was it that long? A. I won't say so.

Q. As a matter of fact, was it not slightly less than three—two weeks, or 17 days? A. I didn't ask.

Q. Did you ever hear afterwards how long this vessel was at New York after she reached there before this cargo was taken out? A. No, not until lately.

Mr. Sprague: I object.

A. (Witness continues.) I didn't know how
1553 long, but since I have heard this thing was going on I heard she laid in New York a long while before the cargo was taken out.

Q. Before the citrate was taken out?

Mr. Sprague: I object; it is only hearsay.

Q. Have you any idea of the depth of the hold in that No. 1 between the tank top or keel, whichever it may have been, and the between deck? A. I have not.

Q. As I understand your testimony, as an ex-
1554 pert, there was no way to remove that cargo from that lower hold except to cut it out? A. That is my candid opinion.

Q. That is considering the size of the bales was approximately 4′ 6″ by 2 by 2, and that there was space between the bales to which you could see a depth of four feet if the water had not intervened? A. Will you change that word "space" to "crack"; you could see down half an inch, and space is hardly under your idea.

Q. Let us use the description you put it as a

crack regardless of what it was, let me say an opening of some kind that you could see a distance of four feet down and you say in reference to all that, there was no way of getting the cargo out of the hold except by cutting it out? A. I say so. 1555

Q. There was nothing on top of the cork to interfere with getting it out excepting that pressure of the water in the hold holding it up there? A. That is all.

Q. After you had got the vessel trimmed by the stern, if the water before you did that was in your opinion approximately two feet below the 'tween deck, that is in the lower hold about two feet below 'tween deck, at the hatch, would you be prepared to say that the water was six feet below deck at the time you had the vessel tipped when she was ready for sea? A. I won't say. 1556

Q. On the figures you have given so far, how do you differentiate? A. We were not interested how deep the water was after we concluded to tip her.

Q. As a matter of figures—— A. Once we had concluded to tip the ship, supposing she was dry it would not have changed the idea of sending her to New York, after all arrangements were made. 1557

Q. What was felt to be expedient, that the ship get to New York, not taking the cork and stuff out? A. After we had made all arrangements, certainly; New York was her home port and the cargo was bound there.

Q. And not taking it out here ? A. If you took it out here it would be a total loss altogether.

Q. Are you prepared to say it would be a total loss if taken out here? A. I think likely it would .

1558 Q. That is what you think? A. There is no market for it.

Mr. O'Neill: I move to strike out.

Q. Do you know the properties of the acid? Know anything of the value of the acid in lower No. 1 hold? A. I do not; I have no idea.

Q. You cannot even guess? A. No.

Q. You cannot even make a guess or comparison as to the value of all the lemons and as to the value of the citrate in No. 1 hold? A. No; if you discharged it here it was not marketable;

1559 we had similar cases with tobacco.

Q. Could it be taken on a dry ship? A. We had wet tobacco brought in here and we could not get a market for it.

Q. Assume, for the sake of the record, that citrate was worth in excess of $200,000 in a sound condition, and assume it was worth as it stood in that hold at least $200,000 in Halifax, do I understand you to say it would not be profitable to take it out and put it in a dry ship and send it to New York?

Mr. Sprague: I object to assumption:

1560 it is entirely outside the facts.

A. That is no question to ask me.

Q. Assuming you could get it out? A. I say we could not.

Q. Assume you could, is that not the thing, to send it to destination in a dry ship? A. We could not get it out.

Q. Let us assume you could get it out. A. I won't assume.

Q. I ask you do to it as a matter of testimony.

A. Then I won't answer it; I won't assume; I am giving straight testimony. 1561

Mr. O'Neill: I move to strike out where he testifies giving his expert testimony on anything, by reason he refuses to give further testimony and assume statement of facts on cross examination.

Mr. Sprague: I think he does not quite understand the situation.

By Mr. Sprague:

Q. If it could have been taken out, and it was worth $200,000 in its then condition, the proper thing would be to send it on in another ship? A. Certainly; Mr. O'Neill was not asking me that. 1562

By Mr. O'Neill:

Q. Whether you are interested in figures or not, the fact is when that vessel was tilted the water would have been six feet below the 'tween deck, in that No. 1 lower hold after she was trimmed for sea? A. Probably.

Q. And you didn't look down there after she was trimmed to see how far you could see? A. No, we were making her ready for sea. 1563

Q. Did you ever meet Captain Gilboy during that handling of the vessel down there? A. I don't remember; there were so many people going back and forth.

Q. As I understand it, I may be wrong, there was a Captain Gilboy supposed to be here in Halifax representing the owners in New York; he came from there specially as Port Superin-

1564 tendent to look after the situation and render any aid he could. A. While the ship was here?

Q. Yes. A. I cannot say; probably I did; I won't say; he may be one of the interested parties I refer to.

Q. These interested parties you referred to, as I read to you from your report? A. Yes, he may have been one of the interested parties there.

Q. You are satisfied there was nothing removed from No. 1 lower hold? A. Yes.

Q. I suppose with that pressure of the cork, if you could relieve that pressure to remove anything, you could have removed everything? A.

1565 How would you get at it?

Q. If you relieved the pressure at all that you saw on the cork made by the water in the hold, and you could relieve that to get anything out, you could have got everything? A. Yes, if we cut the cork all out and put a diver down.

Q. If you were able to get anything out you would be able to get everything regardless of how you did it? A. Yes, there is nothing but what you can do if you take time.

Q. You could have got it all out? A. If you took the time.

1566 Q. A moment ago you testified here that in your opinion the reason for that vessel to go on to destination was it was only proper that the vessel should go to New York. A. She should have gone to New York.

Q. That any vessel under these circumstances should go to her home port for final survey and repairs? A. If it is prudent to do so.

Q. And you thought that was prudent for this ship to do so for that reason? A. Yes, in the interests of all concerned.

Q. All those concerned with you in the mat-

ter? A. When I say that, it is all that was 1567
there.

Q. Do you recall what classification this vessel held? A. Lloyd's, I suppose, or I understood.

Q. So Lloyd's agent here would be the man interested in her classification as to her hull and machinery? A. Yes.

Q. Is there anything in your duties as Port Warden you spoke about, in these rules and regulations, that compel you to serve in cases of this kind? A. Excepting I am called; if I am called I have to serve.

Q. Do the rules say you are to go when called? 1568
A. Yes, if called.

Q. Let me see that regulation? A. Rule 8.

Q. Did the vessel have any list to either side when she came in? A. Not as I remember; if there was, it was not over a degree or two.

Q. Did she have any going out? A. No.

Q. Going out she was trimmed by the stern but otherwise she had no list either to port or starboard? A. No.

Q. Do you know what kind of packages this citrate was in? A. I have an idea what kind of packages but it is from other experience.

Q. Ever have experience with citrate before? 1569
A. No, but I understand they are packed same as cream of tartar in wooden casks.

Q. When did you first see the cargo or stowage plan of this vessel? A. I suppose the day I went aboard her, the 27th.

Q. Did you know the stowage plan was available for anyone to see who came there in connection with this matter? A. I think likely; the day it came into the wharf.

Q. Was it called for? A. Yes.

1570 Q. And produced by the master and mate? A. I don't remember, but I think it was there.

Q. There was no trouble getting space here and docks or wharves to unload any part of the cargo if you wanted to discharge? A. No trouble.

Q. Your difficulty was delay in getting a dry dock? A. Yes.

Q. After you got her down by the stern and ready to go to sea was there any chance or any available place to beach that vessel in this harbor? A. No.

1571 Q. You have never known that to be done under these circumstances? A. What would you beach her for?

Q. Was there any opportunity? A. I think there would be, yes.

Q. What is the rise and fall of the tide here? A. Only six feet.

Q. You could have beached her and got another drop of six feet in her? A. No, any place you would beach her that she would settle you would not get more than a rise and fall of four feet, I don't think.

Q. In beaching her you could reduce the water
1572 four feet more at the least? A. I suppose you could; she would be in New York by the time you had her beached.

Q. How long would it take? A. Take her from the wharf and shift her around and get her beached, it would take three or four tides, 36 to 40 hours; you would have to wait for high water, and the next high water would be at night.

Q. That was not considered at this time? A. No.

Q. The question of beaching her and following out the suggestion of my last few questions was

not considered? A. No, we didn't think it was prudent. 1573

Q. You didn't think of it at all; it was not considered? A. Not at all; I don't know who would consider it.

Q. You still, to this day, stand by the recommendations you made here in this survey; you have no reason to change or alter? A. If the same thing transpired tomorrow I would make the same recommendations.

Q. You made a recommendation the cargo be discharged when she got to New York? A. I suppose so.

Q. When you made that recommendation that it be discharged when it got to New York, did you mean at the arrival of the vessel at New York or two months later; what did your recommendation mean? 1574

Mr. Sprague: I object to that; it is calling for the interpretation of a document in writing which is before the court; it is for the court to decide.

Q. What did you mean? A. As soon as practicable.

Q. To discharge all the cargo from the vessel as soon as practicable? A. They would have to get that vessel into dock and discharge her. 1575

Q. Is that what you intended? A. Yes, get her into dock and discharge the cargo.

Q. Part or all? A. If the dock was ready I suppose they would put her in as soon as possible.

Q. Did your recommendation intend all or part of the cargo be discharged when she arrived at

1576 New York? A. For the purpose of these repairs?

Q. When you made this recommendation, and here is your English as you have it here. A. I meant the whole of the cargo.

Mr. Sprague: I object; it is calling for the interpretation of a written document which is before the court and it is for the court to decide.

Q. Do you know whether or not it was the opinion of the other surveyors involved in this
1577 matter that when that citrate of lime first became immersed in water that it became a total loss same as any kind of lime by reason of coming in contact with water?

Mr. Sprague: I object to the question as calling for hearsay.

A. I think so; it would be the opinion of the whole; I don't say a total loss.

Q. What was your opinion about that, after the citrate of lime came in contact with water? Was it not your opinion that when this citrate of lime
1578 in the lower No. 1 hold came in contact with water so that it was immersed and submerged in the water, it was just in exactly the same position as any other kind of lime that came in contact with water? A. Lime for plastering? I considered the damage to that would be the same as if you had a cargo of sugar down there; we are conversant with that; of that sugar a certain portion would be melted and lost, and the sooner we could get it away and get it to destination,

or where it would be taken out, then the better chance there was for saving a portion of it. 1579

Q. Was it your opinion that by reason of the fact that this citrate of lime in that lower hold had come in contact with the water on July 24th and it had been submerged there in the water for three or four days, by that time it had practically become a total loss? A. I could not say. I would say the same as if it was barrels of sugar.

Q. What would you say the percentage would be? A. I could not say.

Q. What was your idea when considering that in connection with all these matters? A. It would be a portion of it melted. 1580

Q. How much? A. I could not say.

Q. You did have an instance here yourself where sugar immersed for a week had a 66 2/3 loss? A. I won't go into it that fine; we saved a lot of the sugar. My experience is it is a great deal to do with how fresh it is and how it is packed.

Q. You felt at the time you made your recommendations it was generally expedient for this ship to get to New York? A. I did; there is no doubt about that.

Q. For the sake of the ship and perishable cargo? A. For the sake of the ship, cargo and all concerned. 1581

Q. That is, all concerned with whom you came in contact with in this matter? A. Yes.

Q. Did you give us any reason for not cutting out that cork by reason of the fact it would be a rather expensive venture? A. I didn't mention the word expensive.

Q. To take and cut that cork out for the pur-

1582 pose of removing it from the vessel it would be an expensive venture? A. It was never considered. It was not considered, not the expense; we considered even when we cut the cork we had no way to get into the hold to repair it.

Q. And for that reason you thought it better for the ship to carry on? A. Certainly.

Q. You don't know Captain Gilboy at all? A. I won't say I didn't meet him and talk to him; to put your memory back 1½ years, and I am meeting different surveyors, it is hard to remember a man's name.

1583 Q. Did ever any one tell you at the time of the arrival of the ship at Halifax that the upper tier of the citrate was not under water at all? A. No.

Q. From your testimony that was not a fact? A. Not so far as I know.

Q. And your observation was got from looking down through these cracks? A. And the cargo plan.

Q. And the cargo plan, and from what you could see looking between these cracks—is that upon which you base your answer, you don't believe there was any part of the citrate above the

1584 water when the ship came into Halifax? A. I don't think so.

Q. Was there an attempt made at any time, or was the advisability considered of building a wooden bulkhead outside the ship's skin? A. No.

Q. And cementing it in any way? A. No.

Q. Was the ship accompanied to New York by a tug boat? A. As far as I know; that was the recommendation.

Q. You don't know if it was carried out, of your own personal knowledge? A. No.

Q. So far as you know, did any of the parties 1585
interested here consult any experts concerning this citrate as to what effect the water would have on it? A. I don't know.

Q. As far as you know at no conference when you were present it was done? A. No.

Q. At that time there were plenty of vessels, July, 1920, to trans-ship the cargo? A. I don't think so for New York.

Q. Were there bottoms available for general use? A. I don't think so, not that I know of.

Q. There were plenty of bottoms idle in July, 1920? A. Not laying in Halifax.

Q. Would you say there were none at all? A. 1586
No; I would almost say there was not; there was no steam; there might be sail.

Q. I understand in your further testimony, if this citrate could have been discharged here there was pier space to discharge? A. Yes, lots of pier space.

Q. In the course of the conference between all concerned that you had in reference to this matter while the boat was here, there was considerable discussion about delay, there would be considerable damage to the lemons and fruit? A. I won't put it that way; it was considered, any 1587
delays we would have here, that not only the fruit would be damaged but also if there was any possibility of any of the citrate being saved the quicker it was taken out of the water the better, and the quickest way to get it out of the water would be to send the ship to New York.

Q. And you were at no time of the opinion that if the citrate of lime had been melted it would become a total loss; as I understand you were at no time of the opinion that if this citrate of lime had become melted it would be a total loss? A.

1588 If the whole was melted it would be a total loss, but I am not prepared to say what portion might be saved.

Q. You didn't know what portion was melted at the time the ship was here? A. No.

Q. You don't know how long it would take to melt it? A. No.

Q. And you didn't know then? A. No.

Q. You do know nobody came to you and affirmatively told you if that citrate of lime was taken out of the hold here it would have saved an immense loss to that product? A. Nobody ever told me.

1589

Re-examined by Mr. Sprague:

Q. Was it a commercially feasible proposition to discharge these casks of citrate of lime from that hold while the water was in there? A. No.

Q. You didn't expect that the citrate of lime was to be discharged under your recommendations upon arrival in New York before the water was taken out of the hold? A. No.

Q. You expected her to go in drydock first? A. She would have to go in drydock.

Q. Did you have the citrate of lime in mind
1590 when you said for the benefit of all concerned you thought the cargo should go forward? A. Everything.

Q. Did you ever beach a vessel in order to discharge her cargo in your experience? A. I have beached a ship to keep her from sinking.

Q. To get a cargo out that has been under water? A. No.

Q. Ever know it to be done. A. No.

Q. Would you recommend it in any case in which you were called as a surveyor? A. Not if

the bottom was out of her and she was going to fill up again. 1591

Q. And that was true in this case? A. Yes.

Re-cross-examined by Mr. O'Neill:

Q. Your recommendation did intend that this ship should be drydocked promptly on reaching New York and the cargo got out? A. Yes.

The witness then withdrew.

THOMAS MOON, being duly sworn and examined as a witness for claimants, testified as follows: 1592

By Mr. Sprague:

Q. What is your connection with the Lloyds Register of Shipping? A. Surveyor.

Q. Stationed at Halifax? A. Yes.

Q. How long have you been stationed here? A. Since 1918.

Q. You were the surveyor for Lloyds Register of Shipping in July and August, 1920? A. Yes.

Q. Did you in July and August, 1920, survey the *Willdomino*? A. I did.

Q. Do you recall what day it was you made the first survey? A. On the 27th July. 1593

Q. Where was the vessel then lying? A. It was in the harbor somewhere, probably in the stream; I could not quite swear to that; I rather think it was.

Q. Were there any other surveyors at the time there? A. Yes, I met during the surveys Mr. Wilson and Captain Hall.

Q. Mr. Wilson of the London Salvage and Captain Hall, Port Warden? A. Yes.

1594 Q. Did you prepare a certificate of recommendations after making the survey? A. Yes.

Q. I show you Claimant's Exhibit "I" and ask you if that is the certificate of recommendations? A. Yes, that is right.

Q. After this, were the repairs you recommended completed to your satisfaction? A. Yes, all but the soundings; and that was to be taken on the voyage; I suppose they were taken.

Q. After these repairs had been completed, did you issue a further certificate? A. I gave a seaworthy certificate.

1595 Q. I show you Exhibit "J" and ask if that is it? A. Yes, that is it.

Q. Calling attention to Exhibit "I" I note there is reference to diver's report attached; I show you Claimant's Exhibit "H" and ask you if that is the diver's report which was attached to your original? A. Yes, I don't know if that is the original, but that is the report of the diver.

Q. That is a copy of the report; of course, you were not a diver and you were not able to get down to see exactly what the damage was? A. No.

Q. Did you rely on the diver's report to make
1596 the recommendations? A. Yes.

Mr. O'Neill: I object, as leading and suggestive. The witness should be told to go on with his narrative without being led.

Q. Did you consider putting the vessel in drydock? A. I recommended that in the first place.

Q. Why was it not carried out? A. There is only one drydock and there was a ship in which was likely to be in some weeks.

Q. Do you know that of your own knowledge? 1597
A. Yes.

Q. Make inquiries yourself? A. I did at that time.

Q. What response did you get? A. I knew the ship would be there some time; I had the ship under survey and I knew it would be three or four weeks.

Q. As a matter of fact, were they three or four weeks before they finished it? A. I believe they were over four; I could not quite tell the date; it was about a month afterwards.

Q. Do you recall what they were doing to that ship in the drydock? A. Going through special 1598
survey.

Q. Was it possible to remove her while this vessel was drydocked? A. I should hardly think so. I cannot recall now, but I think there were quite a number of plates taken off; I would not say they were off at the time; the ship was in there for survey and we had considerable work to be done and I would not like to say what the progress was at the time.

Q. Did you think it was possible to put the *Willdomino* in? A. No, the other ship was in and they could not take her out. 1599

Q. With whom did you talk about putting her in? A. I recommended she should be put into dock; of course they could not put her in because the other boat was in.

Q. So that she would have had to stay here at least four weeks? A. Yes, she would have to wait until they could put her in.

Q. Did you ever hear of a vessel being beached in order to take the cargo out in a hold that was submerged; it has been suggested in this case it might have been done here? A. No, I would not

1600 say that I have come in contact with it; it might have been done for all that.

Q. Do you think that was a commercially feasible proposition with the *Willdomino*?

Mr. O'Neill: I object to this question.

A. I don't think you would find a place to beach her in this harbor.

Mr. O'Neill: It is not responsive.

Q. Is it commercially feasible to do it? A. I
1601 don't think there is a place in the harbor fit to do that.

Mr. O'Neill: I move to strike out as not responsive.

Q. You consider it was not commercially——

Mr. O'Neill: I object on the ground it is leading and suggestive, and not proper direct examination.

A. That does not affect my case, which is the
1602 ship's seaworthy condition; I am not interested in the cargo.

Q. Would you recommend that that be done? A. No.

Q. To do it they would have had to have your consent as representing the underwriters on the hull? A. I am not representing the underwriters.

Q. As representing Lloyds? A. I am representing the classification of the vessel; I recommended the ship be docked and it was not possible, and it was a question that the ship be allowed to proceed to New York to discharge and

be docked there and I allowed them to do that with certain recommendations as to shoring up bulkheads to make it safe, taking part of the cargo and putting it aft and taking the weight off the fore end of the ship, and I considered she was in a condition to go to New York accompanied by a sea-going tug. 1603

Q. I understand all that work was done to your satisfaction with the exception of what was done on the voyage and you don't know about that? A. No.

Q. Take any soundings in the hold? A. Yes, it was found the vessel was full of water up to sea level. 1604

Q. Take any soundings after she had been trimmed? A. She was still up to sea level.

Q. Did you take her draft at that time? A. No, I didn't.

Cross examined by Mr. O'Neill:

Q. Where was the damage to the skin of the *Willdomino*? A. From the diver's report it was in the fore peak, which would probably run into No. 1 hold, the fore end, from a sketch of the diver's, what we call the watertight floor dividing the fore peak from No. 1 double bottom tank; the fore foot was pushed in against the bulkhead, the collision bulkhead; the bottom of the collision bulkhead, the watertight floor of No. 1 double bottom tank. 1605

Q. Was there any damage to the skin of the vessel aft of the collision bulkhead? A. I can only go by the diver's report; I didn't see it. He reported that this damage was pushed back to the bottom of the collision bulkhead which affected

1606 the plates in the vicinity, which would mean shell plates and bulkhead plates.

Q. Are you in a position to say how water got into No. 1 hold? A. After that bulkhead was punctured the water would get in there.

Q. Through that bulkhead? A. Yes, or probably it would start the seams of the plates, shell plating; there may have been one or two plates punctured in the vicinity; I could not see it.

Q. You are not prepared to say all the damage was forward of the collision bulkhead and the collision bulkhead didn't hold? A. The damage

1607 was in that particular place; it was not a case of the bulkhead not holding, it was a case of where she struck the rock and pushed all the plates; it may not have fractured, but just have started the seams; with that being all pushed up it was impossible to see inside.

Q. You represented Lloyd's Bureau of Shipping? A. Yes.

Q. You are concerned in the classification of the vessel? A. Yes.

Q. And generally under your rules a vessel coming into port in distress, as in this case, as I understand it, her seaworthy certificate lapses

1608 automatically until she is surveyed and the representative gives a temporary certificate, or after repairs are completed a permanent certificate, to carry on? A. Yes, she gets a temporary certificate.

Q. She gets a temporary certificate to carry her on to full repairs after temporary repairs? A. She has a temporary certificate until repairs are completed and then she has a clean certificate.

Q. And she gets a temporary certificate to carry on only after you have made an investiga-

tion for your Bureau and made your recommendations; and the temporary certificate takes her on to final repairs, and that restores her to her class until the next periodic survey? A. Yes; as soon as she gets to her destination she has to be docked then, discharged and docked and permanently repaired at that time. 1609

Q. You went down there representing the Bureau for the purpose of determining what would be done to give her a temporary certificate? A. Yes.

Q. In representing the Bureau on that occasion you represented your classification society in which this vessel was classed by her owners, as owners of her hull? A. I was requested to make a survey by the owners' representative. 1610

Q. Who was that? A. Pickford & Black.

Q. Who specifically asked you in this case to make this on behalf of the owners? A. I don't remember distinctly, probably Mr. Hensley; he generally does it.

Q. And you went aboard for that purpose? A. Yes.

Q. And you were concerned only, I suppose, with the situation as to the hull of the vessel? A. Yes.

Q. And machinery, and nothing else? A. Yes. 1611

Q. When you went down there did you meet the owners' representative, Captain Gilboy, at any time while he was here in Halifax? A. I believe I did. I have some recollection of meeting somebody from New York who was representing some one, I suppose he was the owners' representative.

Q. You don't know whether or not he came specially to look after the situation? A. I don't know what he came for; I remember meeting

1612 somebody; I have a dim recollection of meeting somebody.

Q. Can I see a copy of your survey? When you first went aboard there and made your examination and held your first survey, were you of the opinion that vessel should be dry docked? A. Yes.

Q. Do I understand you to say the vessel that had the dry dock could not be repaired to put this vessel in? A. No, I don't think so. I could not tell you the exact situation of the other vessel now; but she was a long way—pretty nearly a month later before she came out of dock.

1613 Q. And there was no way to temporarily remove her to let this vessel in for temporary repairs and examination? A. I am not certain; it is a long time ago and I forget the facts.

Q. Did they tell you at any time what the perishable cargo was they were anxious to get to New York? A. They didn't say what the perishable cargo was.

Q. And you didn't know? A. No.

Q. Did you know where the perishable cargo was they wanted to get to New York? A. It was supposed to be all over the ship; that is the way

1614 I took it; I don't know where it was.

Q. Were you of the opinion after hearing the diver's report of the situation down there, that the exact damage, and the extent of the damage, could not be discovered until the cargo was removed entirely from No. 1 hold? A. Not until the vessel could be docked.

Q. Did you see this diver's report I have here now, Claimant's Exhibit "H"? A. I had a copy.

Q. Notice he says, the extent of the damage cannot be definitely ascertained until cargo in No. 1 hold was discharged? A. You would have

to take that out because you could not see the extent of it. 1615

Q. Would you have permitted this vessel to have risked that voyage to New York under the circumstances outlined to you, from your own examination and the diver's report, if she did not have perishable cargo and could have waited here to be hauled out?

Mr. Sprague: I object as purely speculative.

A. I think so, under the circumstances, if there was no dock available.

Q. Even if she did not have perishable cargo you would have permitted her to go to New York? 1616
A. Yes, because the situation at that time was different that it is today.

Q. Why put this in your report: "As the vessel was loaded with perishable cargo it was requested that the vessel be allowed to proceed to New York to discharge and dry dock"? A. Because she could not dock here; it was stated it was a perishable cargo.

Q. And that was one of your reasons for permitting her to carry on with temporary repairs? A. Yes. 1617

Mr. Sprague: I object; it is calling for an interpretation of the instrument, which is clear on its face and unambiguous.

A. (Witness continues.) I don't know that would matter entirely; a ship that had no cargo and the situation was the same, and a dock not be available for some considerable time, if it was considered safe for the vessel to proceed I would have allowed her to go as in this case.

1618 Q. But you thought it may—— A. It was stated it was a perishable cargo.

Q. That had something to do with your report or you would not have stated it; lots of things were stated at that time but you put in just what was concerned——

Mr. Sprague: I object.

A. It was stated the cargo was perishable. I put in that the statement was made to me.

Q. Lots of statements were made to you at that time? A. I don't recall them.

1619 Q. You thought it was of sufficient importance to put it in as part justification for recommending the ship to go to New York?

Mr. Sprague: I object.

A. I would put it in probably even if it had not been a perishable cargo and the boat was in a similar condition, even though it was not perishable, and they requested it to go to New York, because the dry dock was not available.

Q. Who requested you to issue a certificate?

1620 A. Some one connected with the owners' representative.

Q. Did you look down No. 1 hold at all in the course of your examination? A. I saw the water.

Q. Could you see the water? A. Yes.

Q. You remember distinctly you saw the water? A. I saw the dampness of water and various things floating about.

Q. See anything between decks of No. 1? A. Yes.

Q. Any water in between decks? A. I don't think so; I don't remember.

Q. How far below the 'tween decks, under 'tween decks in the lower hold, did the water come? A. About sea level; the draft of the vessel. 1621

Q. The sea level of the vessel at that time? A. In the position she was in.

Q. As you saw the water, how far below between decks was it? A. I could not tell you now; I don't remember.

Q. Can you give some slight estimate how far below the water stood? A. I could not; if I knew the draft of the ship I could tell you, and the height of the 'tween deck.

Q. What did you see floating around in the water in the lower hold? A. I could not tell you now. 1622

Q. You saw cargo floating? A. I really don't know what it was now; it is so long ago I have forgotten.

Q. You looked down the hold and saw water through the hatch passing between decks into No. 1 hold? What did you see in that hatch? A. I don't remember what the cargo was.

Q. You saw the cargo floating around? A. Something floating, I could not say what it was.

Q. Whatever it was, it was part of the cargo floating? A. Certain things would be floating; whether boxes or what I could not say; it may have been bags. 1623

Q. You saw something floating? A. There would be some things floating, or on the top of the water, I would not say absolutely floating.

Q. You are not able to say how many feet or inches between decks to the water? A. No.

Q. You saw the water there? A. I saw the water and various things there; what it was I

1624 could not say; they may have been fixed; I could not say.

Re-examined by Mr. Sprague:

Q. Do you recall when it was you saw the water down there, before you put the sand ballast on the stern, or afterwards? A. When we first went aboard the ship.

Q. Before you took cargo out of between decks, No. 1? A. I could not see anything until cargo was taken out between decks.

1625 Q. So it was after that time? A. I was not on board the ship first.

Re-cross examination by Mr. O'Neill:

Q. Before you made the recommendation that No. 2 bulkhead be shored up from No. 2 hold side, that was the subject of considerable conversation between you and the representatives of the owners here? A. I would not say now, I don't remember; I know I recommended the bulkhead to be shored up and part of the cargo would have to be taken out to get at it, and that cargo

1626 moved further back to lighten the vessel forward, which would leave less water in the hold.

Q. Did you make any inquiry or examination to learn how deep the water was in the hold when she left Halifax? A. It was to water level.

Q. How high was that? A. The ship was down by the stern which would lighten the draft so much.

Q. And you don't know what it reduced it? A. It reduced it the same amount; I don't know what it was.

THE WITNESS THEN WITHDREW.

GEORGE W. HENSLEY, being duly sworn and examined as a witness for claimants, testified as 1627
follows:

By Mr. Sprague:

Q. What is your connection with Pickford & Black? A. Director.

Q. How long have you been director? A. About ten years; I have been in the firm 21.

Q. You have been in the shipping business practically all your life? A. Yes.

Q. What is the business of Pickford & Black? A. Steamship agents and brokers.

Q. Did your firm have anything to do with the 1628
steamship *Willdomino* in July and August, 1920? A. Representing the owners.

Q. Did that vessel come in in distress on the 27th July? A. Yes, somewheres about that.

Q. What did you do at that time? A. We called a survey, and Mr. Gilboy came down and represented the owners, and surveys were made by the Port Warden, and classification surveyor and underwriters' surveyor; the Salvage Association, Mr. Wilson.

Q. And the Port Warden was Captain Hall? A. Yes.

Q. What owners did Captain Gilboy represent? 1629
A. The Williams Steamship Company; I think the owners of the vessel.

Q. Did you call in other persons to make surveys on the vessel? A. No.

Q. Why call these three? A. We called Mr. Moon as the classification man; and Captain Hall, Port Warden, official surveyor of the Government.

Q. Is there any person in this port who sur-

1630 veys cargoes? A. Captain Hall is the official of the government.

Q. For the purpose of surveying cargoes? A. Yes, and damage.

Q. If he is called upon? A. The agents or representatives call him.

Q. If he is called upon by anybody in connection with a ship he surveys the cargo? A. Yes.

Q. And definitely appointed by the government? A. Yes, under the Shipping Act.

Mr. O'Neill: I object to all testimony here that in any way attempts to show that
1631 Captain Hall took part in this survey for the account of cargo, on the ground he should be the best evidence himself as to who called him and who paid him, and he has testified by whom he was paid and whom he represented.

A. (Witness continues.) We paid him on behalf of the Williams Steamship Company.

Q. Did you go on the survey at all? A. No, not the first survey; I was around when she came into dock.

1632 Q. How many times were you on her in the dock? A. I expect a dozen times.

Q. Did you perchance look into No. 1 hold? A. Yes.

Q. Before the cargo was taken out between decks or afterwards? A. Both times.

Q. Look into the lower hold after the hatch was taken off? A. I didn't look down the lower hold.

Q. Did you have a cargo plan of the vessel? A. Yes.

Q. When did you see that? A. About a couple of days after she arrived.

Q. Did the master give it to you? A. I think we asked him for it. 1633

Q. Have any discussion with the surveyors regarding the condition of this vessel? A. Yes.

Q. With whom? A. The general discussion went on with everybody; Mr. Moon, Mr. Wilson and Captain Hall, and Captain Gilboy.

Q. Will you state what was said at that discussion. A. General discussion what was best to be done under the circumstances.

Q. Was there a decision arrived at? A. Yes.

Mr. O'Neill: I reserve an objection, it is not binding on my clients. 1634

A. It was decided to shift certain cargo and put ballast on the after deck and trim her, and shore up the bulkhead; put pumps in the hold in case of accident and send her on to New York.

Q. Did you know of your own personal knowledge how much water was in No. 1 hold? A. Only from the reports.

Q. Assuming that there was 18 feet of water in No. 1 hold, was it a commercially feasible proposition to discharge the cork and casks of citrate of lime which were in the lower hold in your estimation as a shipping man? 1635

Mr. O'Neill: I object.

A. If there was nothing else to be done, it would have to be done, but it was best for all concerned, it was considered, to send her to New York. You can get anything out.

Q. The water in this hold, how could you have taken it out? A. Broken up the bales and scooped it out.

1636 Q. With the water still in there? A. Yes.

Q. You would have to use divers? A. Yes, you would have to use divers to take the cork out.

Q. Was that commercially feasible? A. Not under conditions.

Q. Make any inquiries whether the dry dock was available? A. Yes.

Q. Of whom? A. Manager of the dry dock, I expect; the best they could say was about three weeks.

Q. Did you discuss that matter with the surveyors? A. Yes.

1637

Mr. O'Neill: I reserve an objection to all these discussions and conferences as I have done with other witnesses here, on the ground it is not binding on my clients.

Q. Was any demand made by any person upon you that the citrate of lime be discharged in Halifax? A. No.

Q. Who decided that the vessel was to go forward to New York for dry docking and repairs? A. I could not say who decided it; all reports were made to New York by Captain Gilboy and they decided it after getting all particulars from here.

1638

Q. The different surveyors joined in the recommendation?

Mr. O'Neill: I object, leading and suggestive.

Q. Did you reach any decision after all these discussions? A. Yes, I was of opinion she should go to New York—my own unbiased opinion.

Q. And you were not influenced by any other persons' desires? A. None whatever. 1639

Q. And you still think it was the best thing to do? A. Yes.

Q. It has been suggested that this vessel might have been beached while the cargo was taken out of No. 1 hold; in your opinion was that commercially feasible in this harbor? A. We have no lighters for one thing, and it would have taken very much longer than sending her to New York; this is not a lighterage port at all; if you could have got her in dry dock it would be all right. It was not commercially feasible under the circumstances; it was not considered; it was considered the best interests to get her off to New York as soon as possible after being thoroughly discussed; if we could have got the dry dock and run her in, it would be all right. 1640

Q. Have you ever had any experience with citrate of lime that has been under water? A. No.

Cross examined by Mr. O'Neill:

Q. When the vessel came to Halifax first, in distress, did you know what brought her in this direction where she was? A. Yes, short of coal; he tried to coal at Sydney but could not; after a lot of persuasion I got them to give her enough to get her here. 1641

Q. And while en route here he took the ground and got the damage? A. Yes.

Q. Did you know how he came to strike that ledge? A. I don't think it was investigated here.

Mr. Sprague: I object; hearsay.

1642 Q. Have any conversation with the captain as agent of the owner? A. No.

Mr. Sprague: I object; hearsay.

Q. To determine what the cause of this trouble was? A. We didn't have any investigation.

Q. Have any conversation? A. A few words but I forget exactly what he said.

Q. Do you recall what the captain said as to the trouble? A. No, he probably claimed current; I don't know.

1643 Mr. Sprague: I move to strike out what he thought.

Q. Know if he had a chart for entering Halifax? A. I don't know; if he hadn't he could get one in Sydney.

Q. Know whether he had a local pilot when he got into trouble? A. I never heard of one.

Q. After she got here did you see her trim at that time, whether she was down by the head? A. I saw that at the wharf.

Q. She was alongside the wharf? A. When he brought her in she was in the same trim as in
1644 the stream.

Q. Down by the head? A. Yes.

Q. Had you been told by the captain where the damage was? A. Where he thought it was.

Q. Then I understand when alongside the wharf a survey was called? A. Before she came alongside.

Q. She was at anchorage? A. Yes; a diver went under, I think, too; and made a plan.

Q. Do you recall who attended that survey out there? A. I think Mr. Moon and Mr. Wilson and Captain Hall and Captain Gilboy.

Q. Were you present? A. No, I was not out there. 1645

Q. Captain Gilboy was there? A. I think so.

Q. Then recommendations were made as to what was to be done? A. That is right.

Q. Did they commence to shift the cargo aft before she came to the dock? A. No.

Q. She was brought into dock and they commenced shifting the cargo aft? A. Yes.

Q. Do you recall when she got to the dock? A. Not the hour.

Q. The survey was held the day she made port? A. No, I think she got in Monday and the final survey and decision was on Tuesday. 1646

Q. And she was put into dock and discharge commenced on Wednesday? A. No, I think at once; if she was in at 1 o'clock she would commence at once; I don't remember; it was as soon as possible.

Q. When the first survey was held you didn't know there was citrate in the bottom of the vessel? A. Not on Monday; no particular attention was paid to it.

Q. As a matter of fact, several days went by before you learned that citrate was in No. 1 hold? A. It may be a couple of days; it would not have altered the decision. 1647

Q. When did you first talk with Captain Gilboy and the master of this vessel about the cargo or ship generally? A. After the survey.

Q. And do you recall what the conversation was? A. The condition of the whole thing was discussed and reported.

Q. In what conversation was it for the first time you learned there was citrate in No. 1 hold? A. Probably looking over the plan.

Q. Was that discussed between you and the

1648 captain? A. Probably I made a remark that probably some of the citrate was down there and how many barrels were there.

Q. Who did you discuss it with, if anybody? A. Probably with the surveyors, and probably Captain Hall and Captain Gilboy; nothing was discussed about taking it out at all; it was seen it was there. There was also canned goods on the plan in that hold, but they were not there.

Q. When did Captain Gilboy first learn that citrate was there?

1649 Mr. Sprague: I object, unless he knows.

A. I cannot tell you; I don't think it was ever particularly discussed.

Q. There was never much discussion given to the presence of that? A. It was not correct to take that hold out no matter what it was and the best thing was to get her to New York.

Q. When the decision was finally agreed upon by all hands in the situation it was decided to send her to New York? A. No matter what the cargo was.

Q. If you talked these things over there, the
1650 situation was always within the knowledge of Mr. Moon? A. I don't know Mr. Moon—he was a classification man more than anything else.

Q. The captain, yourself, Captain Hall, Captain Gilboy and Mr. Wilson? Would you include them? A. Yes, at any conversation about the ship they were included.

Q. About the ship and cargo? A. General mention.

Q. And they were advised what was the situation? A. And what was best to do.

Q. Do you know whether or not Captain Gilboy had seen a cargo plan? A. I don't remember. 1651

Q. Remember him discussing it with you? A. Not particularly.

Q. A plan was about her, and it was generally known what was in the ship and where it stood? A. That is correct; but cargo plans are not always correct.

Q. As a practical matter let us go into that subject of taking that citrate out; you don't know anything about citrate? A. No.

Q. Or what effect submersion in water for three days has upon it? A. Any question we did ask, we thought it was damaged to such an extent it would not make much difference; any conversation we had on that it would be decided—it was not considered about taking it out. 1652

Q. The conversations you had when these parties were all present was, I take it, that the damage was of such an extent it was not practical to take it out? A. They could do it so much quicker in New York than we could here.

Q. The impression prevailed at that time, I suppose, with you as well as anybody else, that this stuff was practically a total loss? A. We thought in all probability it was so damaged——

Q. You thought it was damaged extensively? A. We thought it was. 1653

Q. And for all practical purposes was a total loss? A. No, but the time it would be under water before we could get it out we had better send it to New York; that that was the best thing to do.

Q. Did you take that view alone? A. That was concurred in by everybody.

Q. With everyone I mentioned, except Mr. Moon? A. Mr. Moon was not a cargo man.

1654 Q. And yourself, speaking for yourself, and the captain of the vessel, and Captain Gilboy, and Mr. Wilson, all four concurred in that view of yours? A. Yes, best to send her to New York.

Q. And also concurred the stuff was damaged to such an extent—— A. We thought it would be more damaged if we kept her here.

Q. What was the state of mind of yourself and these men who conferred with you as to the condition of the stuff here after it was in water three days?

Mr. Sprague: I object as to his giving
1655 the state of mind of anybody but himself.

A. My opinion was, no matter what the cargo was, it was best to get her to New York where they could handle it.

Q. And what did you think of the condition of the cargo? A. Badly damaged.

Q. But not a total loss? A. I would not say; it would not surprise me if it was a total loss.

Q. And as a result of the discussion between you and your colleagues was that the consensus of opinion of all? A. Yes, if you asked them the same question——

1656 Q. I suppose that matter was discussed between you as to the probability of the extent of the damage. A. The condition of the cargo and ship, no matter whether it was gold, it was the best thing to do with the ship.

Mr. Sprague: I object as to probable extent.

Q. When you first went aboard that ship, it was known generally at these discussions that there was citrate in the bottom of the ship, was

it known there was other perishable cargo there? A. Yes. 1657

Q. There was cargo there that would have perished if it didn't get on to destination? A. Yes, the lemons.

Q. How much was lemons? A. I can't tell you. A large lot of lemons and a large lot of cork.

Q. And the lemons, it was desirable they should get on to destination? A. Yes.

Q. And that was part of the idea to get on? A. The whole thing was considered.

Q. The lemons were of a very perishable nature and it was essential they should get on whether wet or not? A. Yes. 1658

Q. You didn't know the value of that citrate? A. No, not the slightest idea.

Q. That you learned afterwards was in No. 1 hold; have you any idea now? A. Not the slightest.

Q. Did you ever know, in sound condition it was worth about $250,000? A. I didn't have the slightest idea.

Q. If you were aware at the time that that cargo in its sound condition was worth $250,000 or $200,000, and by taking it out at that time there would have been a loss of 25%, if you knew that—but you didn't know and were not supposed to know—if you had been advised of that and been told of that, would that have changed your opinion as to taking that cargo out to salve it and prevent this loss? A. Not a bit. 1659

Mr. Sprague: I object to the question on the ground it is speculative and calls for facts which are not established by the record, and also that no notice of the value

1660 or special characteristics of the goods were ever given to the captain or owners of the ship.

Q. Getting back to the question, after the goods were taken out between No. 1 between decks and the hatches were exposed into No. 1 lower hold, did you see that lower hold? A. No, I saw cork; I looked for canned goods and there was none there.

Mr. Sprague: I object.

1661 Q. Did you see water? A. I don't think.

Q. Did you see in that open hatchway at any time? A. I saw from the upper deck.

Q. When you looked you saw cork in the hatchway? A. Yes.

Q. When was that? A. About Thursday or Friday.

Q. And they had the hatch covers off going into lower hold No. 1 and you could see the lower hatchway? A. I don't know I was down; probably the stevedore did; I saw cork.

Q. In the open hatchway? A. Yes.

Q. But you could not see any water? A.
1662 Hardly, she would not be down that low.

Q. The water was below? A. I think about two feet; 17 feet would bring it up pretty closely, practically up between decks; I think so.

Q. You could not see water? A. I didn't look particularly.

Q. Do you recall the size of the bales of that cork? A. Standard sizes.

Q. Do you realize how much smaller a bale is on its largest square surface or largest surface as compared with the size of the open area of the hatchway? A. Yes.

Q. What is the difference? A. I think the 1663
hatchway would take about twelve bales across and four lengthwise; the hatches and strongbacks were not off.

Q. Do you recall whether you saw the cracks and space between the bales as witness Captain Hall testified? A. He would be down amongst the cargo. That is his job.

Q. Did you know whether or not the cork was stowed, piled from the tops of the barrels of citrate up to between deck? A. I could not tell you.

Q. Can you tell us how long the distance is 1664
from between deck through the lower hold until you got to the top of the citrate? A. Twenty feet.

Q. What is the depth of the ship's hold? A. From between decks to her keel, about four feet tank—about 25 feet.

Q. 25 feet from between decks to—from her main deck to her keel? A. Yes, from between decks.

Q. What do you say the distance from the tank tops to between decks is? A. 21 feet, I think.

Q. With that in view, how far do you say it would be until you got down to the top of the 1665
barrels? A. About 19 feet; I don't know the size of the packages.

Q. Was it your understanding there was one tier? A. I looked at the plan and there was.

Q. Look at the plan and say what proportion in depth of that hold it was that was taken up by cork and barrels of citrate. A. This is not the same plan we had (Exhibit "K").

Q. I call for the production of the plan you had. A. I have not got it; it was returned to the ship.

1666 Q. It was not like that plan there? A. It was a big thing.

Q. That was not a copy? A. I should not think.

Q. Were you of the opinion with the others that as soon as this ship arrived at New York she should be discharged? A. Yes, and dry docked.

Q. That was the intention of the conference here? A. I suppose so; it was the correct thing to do; and we would have done it here if we could have got in here.

Mr. Sprague: I object to the intention;
1667 it is stated in the surveys which are written documents.

Q. There was plenty of dock space to discharge if required? A. Yes.

Q. And you had plenty of cranes and equipment? A. Yes, they could use their own winches.

Q. To get that cork out it would be necessary to simply get it in the open hatch and it would float up? A. It would not in the wings.

Q. After you had got the hatch clear would there be any difficulty? A. It jams all the time with pressure.

1668 Q. But it is not impossible to unload it? A. It is not impossible to do anything: nothing is impossible.

Q. Would you say this was a difficult job? A. Yes, quite a job to take that cork out of that hold.

Q. And for that reason it was decided—— A. The time would have been so much saved.

Q. How long would it take to remove that cork? A. About twenty days in that condition, and when you got it out you could not pump the hold out.

Q. Could you sling the barrels out? A. Yes, with a diver; it would be about twenty days under water. 1669

Q. Before you got to it? A. Yes, we considered it would take 15 to 20 days to clean that hold out with the water in the hold.

Q. That is No. 1 hold? A. Yes, the other holds were easy.

Q. Do you know who it was that asked that the vessel be given a temporary certificate; do you recall who were here at the time; who was in charge of the situation? A. Captain Gilboy as far as orders went, for the owners in New York.

Q. He came to see you as agent? A. We were to carry out his instructions; be guided by him; it was talked over by everybody. 1670

Q. Were Captain Gilboy's instructions carried out in this matter? A. Yes.

Q. What was done here generally in connection with this ship was done under Captain Gilboy's orders and not yours? A. Yes, we all agreed on it; he was owners' representative here.

Q. He came up specially for this case? A. Yes.

Mr. Sprague: I object unless he knows.

1671

Q. Were there any officers of the steamship company here in Halifax? A. Not that I know of.

Q. This was her home port? A. Registered here, that is all; I think she was.

Q. Her port of registry was here?

Mr. Sprague: It is admitted it was.

Q. Was it not the opinion of all here at Halifax, so far as you knew, citrate of lime was about the

1672 same as any kind of lime, that contact with sea water would damage it immediately? A. I have said all I have to say about the citrate of lime.

Q. Can't you tell me? A. No, I have said all I am going to say about the citrate of lime and cork; every bit.

Q. Is it not a fact that you and the others in conference with you here at Halifax at the time Captain Gilboy was here were of the opinion, so far as you know about the matter, that this citrate of lime would be in the same condition as any other lime or any other kind of lime that had come in contact and become submerged in sea

1673 water?

Mr. Sprague: I object to the question on the ground it is indefinite, and, second, it is calling for opinion of other persons and therefore calling for hearsay.

A. I have said all I am going to say about citrate of lime.

Q. I give you a comparison and specific statement. A. I have answered the same question.

Q. Did I make a comparison before? A. You asked me a value.

1674 Q. Did I attempt to make a comparison in your mind between this kind of lime and other limes? A. I knew it was not slack lime.

Q. The situation is you won't answer? A. I answered previously and decline to answer any more.

Mr. O'Neill: I reserve a motion to strike out this witness's entire testimony on the ground of his refusal to answer this question in the form it is put here.

Q. Were you not of the opinion at that time that the fact this citrate of lime had become submerged in sea water it had become a total loss? A. I didn't think it would become more damaged; that was my opinion. 1675

Q. Was that opinion not discussed by you and the others? A. I don't remember that.

Q. You say there are no lighters in this harbor? A. We have a few small ones; it is not a lighterage port.

Q. As far as that cork was concerned, it would not hurt the cork if you put it overboard provided you took care of it? A. You could not take care of it. 1676

Q. You could put it on the beach? A. That would be fun.

Q. It could be done? A. You can do anything.

Q. Did you, or anybody you know, inquire if there was a chemical laboratory here that could recondition that citrate? A. It was not discussed.

Q. Captain Gilboy didn't bring it up? A. Not that I know of.

Q. As late as July 29th you were under the impression there was nothing but corkwood in that hold? A. It may have been around that time. 1677

Q. If you wrote a letter under that date and stated there was only corkwood in No. 1 hold where the water is, that was your best information at that time? A. Yes.

Q. Remember writing that? A. That is a personal letter; I represent Pickford and Black.

Q. I ask personally whether or not, as an individual, regardless of whom you represent, at the first instance you didn't know there was anything but corkwood in that hold? A. Yes.

1678 Q. Your testimony I understand is clear that it was you representing Pickford and Black, acting for the owners, called in Captain Hall, and you paid him or the master of the ship? A. The owners paid him.

Q. Do you know the firm of McInnes, Jenks and Lovett, Barristers, Halifax? A. Yes.

Q. Did they appear in the situation in any way? A. No.

Q. Were you aware that the Convoy Steamship Company are supposed to have an office in Halifax and was organized here? A. Lots of ships are
1679 organized here but only for organization purposes.

Q. Was there any strike in this port at that time? A. No. There might have been a mechanics' strike.

Q. No port strike in connection with port work? A. Not that I know of.

Q. Did you ever discuss with anybody the advisability of putting a collision mat over the side? A. I think it was discussed a little.

Q. Why was it not done? A. The other was more feasible, to tip the steamer.

Q. Had you put a collision mat over the break
1680 in the fore peak was it not possible to pump the steamer out and get the cargo out? A. It was not feasible; it was not tried.

Q. Did Captain Gilboy consider that? A. I think it was discussed at the time.

Q. Was the question discussed at all by the parties we have mentioned here before, that were with you; was the question ever raised in these conferences as to whether or not the cargo of citrate could be reconditioned at this port? A. Never.

Q. When was it that the surveyors first found

out there was citrate of lime in the lower hold? 1681
A. I can't tell you.

Q. Is it not a fact if you were able to get all the cork out of this vessel in the wake of the hatch, underneath the hatchway, right down to where the barrels of citrate of lime was, then with the weight of the cargo lifted up underneath between decks, the diver would have got the citrate out? A. A diver would never go down with the cargo perpendicular, it might cave in; he would not go down under those conditions.

Q. It could be shored up. A. Divers don't risk their lives under those conditions.

Q. Of course, as you said before, all your con- 1682
duct of the affairs there at the time, throughout the stay of the ship here, was because you were a director of Pickford and Black, agents for the steamer, and doing your work for the steamer's account? A. That is right.

Q. You and your firm were acting as agents for the steamer only? A. For the interests of all concerned.

Q. You didn't know, or at no time did you learn how many tiers of casks were piled from the tank tops of this citrate of lime? A. No, I understood there was only 100 barrels, but I don't 1683
know if that is correct.

Q. At the time you stated, on the 29th July, that there was only corkwood in the lower hold, who told you that? A. I suppose the master.

Q. Didn't the captain of this steamer at some time state to you that the top tier of the barrels of citrate was never under water?

Mr. Sprague : I object; it is calling for hearsay.

A. He never did.

1684 Q. You knew there was citronade in this vessel in No. 3 hold? A. Part of that cargo was in No. 3 hold.

Q. Your impression was that the citrate in No. 1 hold was the same kind as that in No. 3? A. Yes.

Q. Was that the information you had from the captain at that time? A. Yes.

Q. Was that the information Captain Gilboy had?

Mr. Sprague: I object to that.

1685 A. I thought that in No. 3 was part of that in No. 1.

Q. You are satisfied the vessel had an efficient cargo plan? A. I don't know if it was or not.

Q. You saw it after it was here a few days and then learned for the first time she had this citrate in the bottom of No. 1. Did you receive at any time when this vessel was here a telegram from the owners requesting you to get her cleared and on to New York? A. Not particularly; to hurry her; that was all.

Q. You received a telegram requesting you to hurry her on to New York and you did hurry
1686 her? A. Yes, that is a question that comes from every owner.

Q. In this particular case—and that came from the owners? A. It may have come through Captain Gilboy.

Q. He may have received it? A. He may have; I don't know.

Re-examined by Mr. Sprague: 1687

Q. Was the work that was done on the ship done expeditiously, in your opinion? A. Yes, it was.

Q. Do you know whether there is any commercial chemical laboratory here in Halifax that could treat 500 barrels and re-condition that amount of citrate? A. I don't know; I don't know what treatment it needs.

Q. You said it was not feasible to use mats—collision mats? A. It was not expeditious; the other way was thought to be the best way.

Q. You could have done it with collision mats? 1688
A. You can patch her altogether with a diver if you want to take the time.

Q. Was there any other cargo surveyor here who represents cargo or cargo underwriters besides the Port Warden?

> Mr. O'Neill: I object to "besides the Port Warden." There is no proof this Warden was retained by any cargo underwriters in this case, and I object to suggestions to that effect going in the record. Whatever the local status of this Port Warden is will appear from the Statutes. 1689

Q. You stated there was a cargo plan that was different from this Claimant's Exhibit "K"; was it on a printed form? A. I think it was.

Q. And somewhat larger than this? A. Yes, but it is out of my mind altogether.

Q. You are not willing to say the items are not the same? A. I thought No. 1 hold didn't

look like that; there was one tier over the bottom, was my recollection.

Q. Was there anything extraordinary, in your opinion, in receiving a telegram from the owners to hurry the ship along? A. I don't remember it particularly.

Q. It is what the owners always do? A. Yes.

The witness then withdrew.

I HEREBY CERTIFY that the pages numbered 269 to 356, both inclusive, contain the testimony of Thomas C. Warkman, Thomas Moon and George W. Hensley as transcribed by me from the shorthand notes taken by me on the examination of said witnesses at Halifax, Nova Scotia, the 1st day of December, A. D., 1921, and that the said witnesses were duly sworn by me before giving said evidence.

ROBERT ECCLES,
A Commissioner of the Supreme Court
of Nova Scotia.

Deposition of Percival Ward Wilson.

1693

UNITED STATES DISTRICT COURT,

DISTRICT OF NEW JERSEY.

CHARLES PFIZER, INC.,

Libellant,

—against—

S. S. "WILLDOMINO",

Respondent,

CITRO CHEMICAL COMPANY OF AMERICA,

1694

—against—

S. S. "WILLDOMINO",

and

CROSS LIBEL.

Deposition of Percival Ward Wilson, a witness produced on behalf of claimant, and examined pursuant to consent.

APPEARANCES:

1695

HARRINGTON, BIGHAM & ENGLAR—MR. O'NEILL, for Libellants.

HUNT, HILL & BETTS—MR. SPRAGUE, for Claimant and Cross Libellant.

It is understood that the testimony of the witness may be taken by a stenographer signing certificate, and filing waived, copy of depositions to be furnished to Proctors for Libellants, stenographer's fees taxed as costs.

1696 On this ninth day of December, in the year of our Lord one thousand nine hundred and twenty-one, before Ernest W. Bush,, Commissioner and Official Court Stenographer, personally came and appeared Percival Ward Wilson, a witness produced on behalf of claimants.

Direct examination by Mr. Sprague on behalf of Claimants:

Q. Mr. Wilson, are you now connected with the Salvage Association, London? A. Yes.

Q. In what capacity, and at what place? A.
1697 As surveyor at the Port of Halifax.

Q. How long have you been a surveyor of this association at the Port of Halifax? A. I have been with the association since 1916.

Q. Prior to that time, what was your occupation? A. Well, I was manager of an engine works in the old country and did surveying work over there on occasion, looked after steamer repairs, and so on.

Q. Was the old country you referred to, England? A. England.

Q. And prior to that time? A. I was seagoing engineer.

1698 Q. Have you been in either the marine engineering or surveying business practically all your life? A. Practically so.

Q. In July and August, 1920, were you a surveyor for the Salvage Association of London at Halifax? A. Yes.

Q. Did you have anything to do with the *S. S. Willdomino* during those months? A. Yes, I was surveyor there for the underwriters.

Q. Do you recall the date when she came into Halifax? A. Well, I would need to look at the report.

Q. The vessel arrived in Halifax on the 27th of July, 1920; where was she when you first saw her? A. She was anchored in the harbor at Halifax. 1699

Q. And was that the first day after her arrival? A. I think that was the day of her arrival.

Q. Who called you into the case? A. I rather think it was Lloyds' agents.

Q. And who were they? A. Messrs. Pickford & Black.

Q. Of Halifax? A. Of Halifax.

Q. And whom did you represent in making your survey? A. The underwriters. There were underwriters on the hull, I suppose. 1700

Q. Do you recall what time of the day it was when you first went on the ship? A. It was in the forenoon, I should say probably ten o'clock in the morning.

Q. Did anyone accompany you? A. Yes, there was Captain Hall, and I think there was the classification man there, Mr. Moon.

Q. By Captain Hall, you refer to the Port Warden? A. Yes.

Q. Of Halifax? A. Of Halifax.

Q. What did you do upon arrival at the ship? A. Well, we ascertained the conditions. The No. 1 hold was full of water. The fore peak was full. 1701

Q. Did you take soundings? A. We took soundings. It was full to sea level, about 18 feet, I should say.

By Mr. O'Neill:

Q. In both forepeak and No. 1 hold? A. In both forepeak and No. 1 hold.

1702 *By Mr. Sprague:*

Q. Did you take soundings in the forepeak? A. No, we did not before. It was not necessary. We could see the water there.

Q. At that time the 'tween deck in No. 1 hold was full of cargo? A. Yes.

Q. What else did you do? A. We had the Maritime Wrecking Salvage Co.'s people there and report to us whether the ship could be plugged and made tight, afloat. The diver went down and made two journeys and came up and
1703 reported that he could not do anything whatsoever with her.

Q. Did he make a report in writing? A. Subsequently, but he gave it to us first; of course, verbally.

Mr. O'Neill: I call for production of the diver's report in which he reported there was nothing could be done for her.

By Mr. Sprague:

Q. Was this first report he made to you oral or in writing? A. A verbal report.

1704 Q. By word of mouth? A. By word of mouth.

Q. And later he made a written report, did he? A. He made a written report later.

Mr. O'Neill: I object to the question, and move to strike out the answer wherein it appears that this conversation between Captain Wilson and his diver is merely hearsay testimony, and I call for the production of any report in writing showing that the diver reported that nothing could be done to the ship.

By Mr. Sprague: 1705

Q. I show you a paper marked "Claimant's Exhibit H" which has already been introduced in evidence, and ask you if that is a copy of the diver's report?

Mr. O'Neill: I object to the witness reading that report. He is asked to look at the paper and state whether or not that is the paper.

Witness: The diver's report is practically incorporated in my own report, so I do not see that there is anything the 1706 matter.

By Mr. Sprague:

Q. Well, is it correct that you made a report of survey? A. Yes.

Q. And to that report did you attach a copy of the diver's report? A. A condensed copy is attached here, reading exactly the same as this.

Q. And by "this" you refer to the paper I have just shown you, Claimant's Exhibit H? A. Yes.

Q. I show you this document and ask you if that is your report of survey that you mentioned? 1707
A. Yes, that is the report.

Mr. Sprague: I ask to have it marked for identification as Claimant's Exhibit Y.

Q. What, if anything, did you do after you received the oral report of the diver? A. Well, we decided to get the ship right alongside of the wharf.

Q. When you say "we", to whom do you refer?

1708 A. Well, that was Lloyds' agents and the ship's agents, Master, and all concerned that were present.

Q. Did that include Captain Hall, the Port Warden? A. Yes.

Q. And you came to a joint decision, did you? A. Yes.

Q. And that was to move her alongside the wharf? A. To move her alongside the wharf.

Mr. O'Neill: Objected to.

By Mr. Sprague:

1709

Q. What did you do? After she was brought alongside the wharf? A. We then discussed as to what repair we could make to her. We ascertained that the drydock would not be available for several weeks, and there was a strike on at that time, everything tied up. We then asked the wrecking company how long it would take them to seal up No. 1 hold, and they said about ten days, explaining that there was a shortage of the requisite timber that they would require. We then discussed the question of shoring up the No.

1710 1 bulkhead, and letting the ship go in that condition to New York as the quickest way.

Mr. O'Neill: You are saying No. 1 bulkhead and I think you mean No. 2.

Witness: Wait a minute now.

Mr. O'Neill: Well, all right, go ahead. I want to be fair to you.

Witness: We called the forepeak bulkhead—put it down bulkhead between No. 1 and 2 holds.

By Mr. Sprague: 1711

Q. That is the one you have been referring to right along? A. Yes, I would always call it the forepeak bulkhead.

Q. It was the bulkhead between No. 1 and 2 holds? A. Absolutely. Well, it was decided to do this shoring up and some cargo was discharged out of No. 2 necessary to get the shores in place, and that cargo was put in the aft part of the vessel, or wherever we could get it, and the shoring work was commenced. After its completion the vessel was sent off to New York and arrived there safely all right. 1712

Q. Did you yourself make inquiry as to when the drydock would be available? A. Yes, I rang up Mr. McClurg at the drydock.

Q. Is there more than one drydock in Halifax? A. Yes, there is another one, but it is not big enough as a slip way. It would not take the ship back on the dock.

Q. What did Mr. McClurg say to you about the drydock and its being available? A. He said it was out of the question to ship in there with the works stopped, due to the strike, and he said it was impossible. 1713

Q. Did he give you any intimation as to when it would be available? Did he mention any specific time? A. No, I do not think he did.

Q. What did you refer to when you said in your former answer that you consulted with the Maritime Wrecking Company as to sealing up No. 1 hold? A. Well, I had in mind sealing up the hatch and putting air on that hold and sending her down to New York that way.

Q. By air I suppose you mean compressed air? A. Compressed air.

1714 Q. What effect would that have upon the water in the hold? A. Oh, it would blow some of it out. It would not blow all of it out.

Q. It would bring the ship up by the head? A. Bring her up by the head.

Q. Could you, after you had put in the compressed air, unload the cargo in that hold? A. No, I would not attempt it.

Mr. O'Neill: I move to strike out "I would not attempt it" on the ground that it is not responsive.

1715 *By Mr. Sprague*:

Q. Could it be done? A. It could be done, but it would take a very long time.

Q. The compressed air is only of effect in the hold when the holds are closed? A. Well, we would have to have special air locks to get down there.

Q. Would it have been a commercially feasible proposition in your opinion? A. I should say not.

Q. When you say it would take a long time, have you any idea in mind as to how long it would
1716 take? A. Well, you can judge the time it would take by having to pass everything through the locks, which are small compartments with doors on, and probably they would not be big enough for passage of some of the cargo.

Q. Were those locks available in Halifax? A. They are the subject of a patent, and we would have to have permission of the patentee to use them, which would have been loss of time, and as I said, out of the question.

Q. Was that patentee in Halifax, where he was available? A. No.

Q. Did you see a cargo plan or storage plan of the vessel when you went on board of her? A. I was shown one, I think, later, subsequently, later in the day, in the agent's office. 1717

Q. Was that the first day that you went on board the ship? A. I think so.

Mr. O'Neill: I move to strike out "I think so" on the ground that it is too vague and immaterial matter in this evidence.

By Mr. Sprague:

Q. Is that your best recollection, that it was on the first day? A. Yes, I would say it was in the afternoon of the first day. It was not in the morning because we had other things to look out for. 1718

Q. I show you Claimant's Exhibit K, and ask you if that is the cargo plan that was shown you? A. I have a plan here that I took at the time out of my notes.

Q. Did you make that from the cargo plan that was shown to you? A. I made this from the cargo plan shown to me.

Q. At the time it was first shown to you? A. At the time it was first shown to me. 1719

Q. Is that a part of your record, or is it a paper that we might mark here for the Court? A. It is part of the record on the case.

Q. Could I have that paper marked and then have a photograph made of it and send the original back to you? A. Yes.

Mr. Sprague: Have you any objection to that procedure, Mr. O'Neill?

1720 Mr. O'Neill: I will not object to that procedure. I reserve my objection as to the form, as to the essence and immateriality of the paper itself, but not as to your using photographic copies.

Mr. Sprague: I offer in evidence this paper which the witness produces as Claimant's Exhibit Z.

Mr. O'Neill: Did he say he took it from the one shown him?

Mr. Sprague: Yes.

Mr. O'Neill: I would like to reserve my objection to that, except as to the use of
1721 a photographic copy of it, until the trial, or till we learn some more about these different stowage plans that we have seen up to the present time, and I feel obliged to reserve the objection by reason of the fact that testimony already given at Halifax asserts the correctness of Exhibit K, and the exhibit now offered seems to differ in a material sense from Exhibit K.

By Mr. Sprague:

Q. Did you have photographs taken of the
1722 shoring that was used against the bulkhead between 1 and 2 hatches? A. Yes, I did.

Q. Have you produced those photographs, and are these they? A. Yes, these are the photographs.

Mr. Sprague: I offer them in evidence as Claimant's Exhibits AA1 and 2.

Q. Mr. Wilson, do you recall what day it was she was brought to the dock? A. I think that they brought her alongside the same day that we were up in the morning.

Q. In the afternoon of that day? A. I think they did. That was a matter that was left with the ship's agents, but I know it was decided to bring her in at once. 1723

Q. Your recollection is that it was the afternoon of the same day that she was brought in? A. Yes.

Q. Did you visit her when she was at that dock? A. Yes, I went up.

Q. How many times, if you can recall? A. I could not say. I spent quite a lot of time there.

Q. Were you on board her every day or not? A. Oh, yes, two or three times a day.

Q. Until she left? A. Until she left. 1724

Q. Was anything done to the cargo that was in the 'tween decks of No. 1 hold? A. That was taken out and put aft, and it was shored off, made secure.

Q. After the cargo from the 'tween decks of No. 1 was removed, did you open the hatches into the lower hold No. 1? A. Yes, we had those hatches opened.

Q. You observed them opened, did you? A. Yes.

Q. Did you look down into that hold? A. Yes, I just made a casual observation of it, that was all. 1725

Q. State as much in detail as you can what you could see down there. A. There were lots of bales of corks seemed to be floating around and jammed up generally. Some of the cork was broken by having come in contact with the deck beams and so on, hatches.

Q. Was it jammed up against the combings?

Mr. O'Neill. Objected to as leading and highly suggestive.

1726 A. The bales of cork were right in the mouth of the hatch. I only paid casual attention to it, because our work laid on the other side of it,—as to what was in there I could not see anything feasible to work on it at all.

Q. Could you see any casks of any substance at that time? A. No.

Q. Did anyone, so far as you know, make any request or demand that the cargo in lower No. 1 hold be discharged at Halifax? A. No, no mention whatsoever.

Q. Could the cargo in lower No. 1 hold have
1727 been discharged at Halifax in your opinion without the vessel being dry docked?

Mr. O'Neill: I object to that.

A. It could have been discharged by divers, but it would have taken a long time, possibly three weeks, all depending on the nature of the cargo to be discharged. I would not consider it practical under the circumstances.

Q. This cargo, citrate of lime, which was in lower No. 1 hold, it is stated in testimony to have been contained in casks weighing about 500 or
1728 600 pounds each with their contents; would that information change your views at all as to the length of time required to remove this cargo from lower No. 1 hold? A. Well, casks of that size would be very difficult to handle.

By Mr. O'Neill:

Q. Have you had the size?

Mr. Sprague: I gave the weight, not the size.

Mr. O'Neill: I would move to strike out 1729
the witness' answer. There is some way to show who was familiar with the size.

The Witness: The only way you could know the size of the casks would be by some description of them.

Mr. O'Neill: That is it exactly. You have no knowledge of the size of the casks, and I move to strike your answer out for that reason.

By Mr. Sprague:

Q. Would your answer also apply to the casks 1730
of the weight that I have mentioned? A. Yes. The whole thing of having divers go down and discharge cargo under water is, I consider, indefinite. There is nobody will give an answer, no salvage company would give a guaranteed time for discharging cargo under those conditions, as they did not know the circumstances that were obtaining under water. The cargo in the lower hold might have been all solidified and difficult to handle.

Mr. O'Neill: I move to strike out all
this answer with regard to the testimony 1731
given merely on speculation on the part of the witness, as to what the cargo might have been, whereas the only question he is asked about is as to casks of citrate of lime weighing 500 pounds and nothing else.

By Mr. Sprague:

Q. Mr. Wilson, was any suggestion made that the vessel be beached at flood tide and then her

1732 cargo discharged at the ebb? A. I don't think there was. I do not know where you would beach her.

Q. Do you think that would have been a feasible thing to do? A. I do not think it would have helped us. There is only a rise and fall of tide of four feet, as we wanted to get right down into the lower hold.

Q. You believe, do you, that it could not have been done in that manner? A. I believe it could not have been done. It was all deep water, all bold water, besides beaching a loaded ship would not be considered a safe procedure.

1733 Q. As representing the underwriters on the hull, would you have consented to any such procedure? A. No, I would not.

Q. It has been suggested that collision mats might have been used to close the opening to these holds and the water then pumped out; was that, in your opinion, possible? A. No, I do not think it would have been possible. We would have had difficulty in the pumping.

Q. What reasons would you give for your answer that it would not have been possible? A. Well, you would have difficulty with the pumps.

1734 First, you would have difficulty in stopping the leaks. The diver said he could not stop the leak—an experienced man, one of the best men we have got on this American coast—he said, in his opinion, the leak could not be stopped, that the bottom plates and floors were all torn and jagged, and there was an uneven surface.

Q. Do you recall his name? A. David Beaudry. Furthermore, there were fishing nets that had been picked up. The steamer evidently run through fishing nets. These were all tangled up with the broken floors, frames and intercostals.

Q. Do you know how far out the fishing nets are placed off the coast of Nova Scotia, near Halifax? A. Oh, well, they vary. They might be anything, ten miles or they might be placed as far out as off Sable Island, which is 180 miles from harbor. 1735

Q. Is it, or is it not, a common matter to have ships go in the Port of Halifax that have gone afoul of fishing nets off the coast of Nova Scotia? A. It happens occasionally. It is done by accident, either during fog or something of that sort. They are only buoyed very lightly, small buoys on them, and often a ship's master cannot see them, but whenever he can he keeps clear of them naturally. 1736

Q. Was any ballast taken aboard at Halifax? A. Yes, they took some sand ballast.

Q. Do you recall how much? A. I would say between 200 and 300 tons.

Q. And do you recall where that was placed? A. It was placed on the after deck.

Q. For what purpose? A. For the purpose of lifting the bow up and trimming the ship to reduce the pressure on the bulk head between No. 1 and 2.

Q. Did you take soundings in No. 1 after the ballast had been put on board? A. Well, the sounding we got was the same as outside, from memory, about fourteen feet. 1737

Q. And the correct figures are given in your report? A. Yes.

Q. Did you look down into lower No. 1 hold after the sand ballast had been put on board and the vessel had been trimmed, or did you not? A. I don't remember looking down. I do not think I did.

Q. I show you Exhibit Y for identification,

1738 and ask you if that is the written report of survey which you made of surveying this vessel? A. Yes, that is the report.

Q. Was that made at the time? A. At the time that these things were going on.

Q. Is this your signature on the second page to this document? A. Yes.

Q. And is the date given on that document, August 2nd, 1920, the date on which the report was actually made? A. The report was issued on that date.

Mr. Sprague: I offer this in evidence.

1739 Mr. O'Neill: I reserve my objection to the introduction of that paper at this time.

By Mr. Sprague:

Q. Now, I notice that at the end of Claimant's Exhibit Y, which is your report of survey, a blueprint with two diagrams thereon and certain writing; will you please state what that blueprint represents? A. The top diagram shows the trim of the steamer *Willdomino* when she arrived at Halifax drawing 14 feet for'ard and 20 feet aft. There is a footnote on the bottom of

1740 this which says "4 foot gone and plating, double back, 2 floor spaces abaft collision bulkhead, patching O. S. (which means outside) impracticable. Sealing up No. 1 is deferred special request owners, part cargo fruit, bulk of cargo baled cork." Blueprint dated Halifax, July 29th, 1920.

Q. Who made that blueprint? A. I did.

Q. And are those notations on the blueprint yours? A. Yes.

Q. And were they made on that date, July 29th, 1920? A. Yes.

Q. This paper marked "Diver's report" and attached to Claimant's Exhibit Y, is that the copy of the report in writing that you have mentioned as having received from the diver? A. Yes, this is the same thing. 1741

Q. In addition to making this report of survey, did you also give a certificate of seaworthiness on the *Willdomino?* A. Yes.

Q. I show you Claimant's Exhibit V already offered, and ask you if that is your certificate? A. Yes, that is mine.

Q. Is that your signature at the bottom? A. That is my signature.

Q. And was that report made on the date given thereon, August 2nd, 1920? A. Yes. 1742

Q. What is the purpose of the report and the certificate, of having two separate documents? A. The report is to put on record the nature and extent of damages, and the certificate of seaworthiness is made to show that temporary repairs of some kind have been carried out and that the vessel is seaworthy to proceed to her destination.

Q. Were all these changes and temporary repairs that you have suggested actually made before the vessel left Halifax? A. Yes. 1743

Q. Was it done to your satisfaction? A. Absolutely.

Q. Was there anybody on board the vessel during these surveys other than the master who represented the cargo?

Mr. O'Neill: I object to the form of that question.

A. There was nobody that came to me about the cargo except the Port Warden who had general

1744 jurisdiction over all ships going to the port, damaged ships.

By Mr. Sprague:

Q. In your opinion, as a surveyor, was everything done that could be done for this ship and her cargo at Halifax under the circumstances then existing?

Mr. O'Neill: I object to that as incompetent, irrelevant and immaterial, and calling for a conclusion on the part of this
1745 witness.

A. Well, I think that the work carried out in Halifax was the quickest possibly way of handling the case.

Mr. O'Neill: I move to strike out the answer as it is not responsive to the question.

By Mr. Sprague:

Q. What do you refer to when you say "of
1746 handling the case"? A. Well, I would put it this way. Suggest what other way could have been done. Can somebody else tell me what else could have been done? What way? Is there any suggestion of any other way than that?

Mr. O'Neill: I move to strike out the answer on the ground that it is asking a question by this witness instead of answering clearly the question put to him.

By Mr. Sprague: 1747

Q. In referring to the "case" as you have in your answer next to the last question, did you include the ship and all that was upon her?

Mr. O'Neill: I object to that as leading and suggestive.

The Witness: Well, you see, with these constant interruptions I don't get a chance to know what you are driving at.

Mr. O'Neill: They are not interruptions. They are objections. If I do not make them here I will be barred from 1748 making them. You have the right, if you are missing the effect of the question by reason of these—as you put them—interruptions, to ask the stenographer to read you back anything you want. You can have them read as far back as you want as far as I am concerned. I am not trying to interrupt you.

Mr. Sprague: He is just putting it on the record so the Court has his objections for the argument when he gets there.

The witness asked to have the question reread to him, and the stenographer repeated the question: 1749

"Q. In referring to the case as you have in your answer next to the last question, did you include the ship and all that was upon her?"

A. Yes, I would.

Mr. O'Neill: I move to strike the question out.

1750 *By Mr. Sprague*:

Q. Do you know of any way in which, as a commercial proposition, the cargo in lower No. 1 hold could have been removed at Halifax under the circumstances then existing? A. I don't know of any practical way except by using divers and as I have stated before it would have taken the best part of three weeks to do this, and then doubtful.

Cross examination by Mr. O'Neill:

1751 Q. You do not contend, Captain Wilson, that you are a cargo surveyor, do you? A. Well, I am not a special cargo surveyor.

Q. As a matter of fact, you are a hull surveyor, are you not? A. Ship and engine surveyor.

Q. In other words, what is known as a hull surveyor? A. Yes.

Q. Or a ship surveyor? A. Ship surveyor.

Q. And not a cargo surveyor? A. Not a cargo surveyor, except I am conversant with how a cargo should be stowed, just the laws of different countries as regards the division of cargo.

1752 Q. I am speaking as to the stowage. Are you a surveyor and have you qualification as such to determine cargo damage or salvage of cargo? A. Oh, yes, we go out to ships where the cargo shipped is submerged and we have to report briefly on the cargo.

Q. What did you make this survey for? A. That survey was on account of the hull underwriters. It says there "in the interest of underwriters concerned."

Q. And it was made to examine the condition of the hull of this vessel, was it not? A. Yes.

Q. That was your purpose, representing the Salvage Association of London? A. Yes. 1753

Q. And nothing else, is not that true? A. Well, I would have——

Q. (Interrupting.) Well, read it, if you are not familiar with your work after being out there, read your preamble of your survey, if we are going to have any long hours about it to find out what you were doing, read it and tell me what your capacity was? A. I could not help but notice when I was out there that the cargo, whatever it was, would have some damage by the fact of being submerged, you must not forget.

Q. As a matter of fact, all you knew was that if there was anything in hold No. 1 it was submerged, that was all? A. Yes. 1754

Q. And nothing else, is not that true? A. Yes.

Q. You really went there, did you not, to find out what condition the hull was in by reason of the stranding and what steps would be necessary for the salving of that hull to preserve it, to get it to destination, or repair it at Halifax or at destination, is not that so? A. But we had the cargo in mind as well as the rest of the cargo in the ship. If our bulkhead and the work we were doing in No. 2, if that had given out, it would have damaged all the cargo in the hold and probably find its way into the rest of the ship. 1755

Q. Can you answer my question "yes" or "no"?

The Witness: Will you put the question again?

The Counsel: I will repeat it to you. You really went there, did you not, to find out what condition the hull was in by reason of the stranding and what steps would be necessary for the salving of that

1756 hull to preserve it, to get it to destnation, or repair it at Halifax or at destination, is not that so?

A. Yes.

Q. Do you contend here now on this record, under oath, that you directed that that cargo be shifted aft for the purpose of raising the forward part of that vessel where the damage to the hull was, or was it done for the purpose of floating the cargo, which?

1757 The Witness: Which cargo do you refer to?

The Counsel: I am referring to whatever cargo you had shifted at that time on that vessel?

A. Well, it was for the purpose of trimming the vessel.

Q. Exactly, there is no doubt about that, is there? A. I have answered your question.

Q. And it was for that very purpose also that that sand ballast was ordered aboard the vessel, to trim her, was it not? A. Yes.

1758 Q. And I understand your directions were that that sand ballast be placed somewhere aft for the purpose of trimming the vessel? A. Yes.

Q. And in trimming the vessel in this specific case, you meant raising her by the head, did you not? A. Yes.

Q. You were representing and paid by the hull underwriters? A. That is a question. I don't know who pays this.

Q. Who paid you? A. We may be paid through the Lloyd's agents or the ship's agent, whoever might be handling it.

Q. Whoever is handling the case? A. Whoever 1759
is handling the case.

Q. In this case, you were requested to go there by Lloyd's agents, were you not? A. It will show that on the face of the record, whoever called us in. What do these reports say?

Q. Well, let us help you in that; you are called in by Messrs. Pickford & Black on behalf of the underwriters. What underwriters do you mean by that? A. I do not know what underwriters. They never told us.

Q. Do you know who Pickford & Black were representing in that matter? A. "On behalf of 1760
the underwriters concerned" the report says.

Q. Who were Pickford & Black representing? A. They were agents for the owners.

Q. Who else? A. And they are Lloyd's agents for the port of Halifax.

Q. Do I understand that at that time when you made this report that you did not know, sir, that you were representing underwriters on the hull? Now, is there any doubt about that in your mind? If there is, clear it up now. A. I did not know who I was representing, whether it was hull or cargo. For anything I knew the same underwriters might have both hull and 1761
cargo. We are supposed to protect both.

Q. Did you at that time make a recommendation that the cargo be removed from No. 1 hold in the first instance there?

The Witness: Do you mean the cargo in the lower hold?

The Counsel: No. 1 hold, not No. 1 'tween deck, I am speaking of the No. 1 hold, which I suppose is lower, and is described as No. 1 lower hold?

1762 A. Well, what we did is plainly shown in these reports.

Q. I am asking you now what you did? A. Well, I can refer you to the report.

Q. Well, all right, you read your reports and I will wait. A. Here is one report. Are you going to copy all this down?

Q. No, I want you to read your report, and I am going to examine you about that report.

Mr. Sprague: You do not mean to read it into the record. You mean for him to read it and then you will ask him ques-

1763 tions.

Mr. O'Neill: I am going to ask him questions about that report or about his knowledge of this case.

The Witness: What is the question you are asking?

Mr. O'Neill: I am going to ask you a lot of questions, and if you are going to refer to your report, I want you to refer to your report and then be prepared to answer me.

A. My report says——

1764 Q. I did not ask you what your report said. I asked you to read it.

The Witness: Now, what is this game. I am not going to stay here all day, I will tell you right now. Let us understand each other.

Mr. O'Neill: I am going to ask you some questions.

A. Here is the answer to your question in my report, No. 1 hold.

Mr. O'Neill: I object to your reading your report to me. I can read as well as you can. My question is very simple, and if you want to read your report and then say you are ready to answer my question, all right. 1765

A. I want to answer the question exactly the same as in my report, which was written at the time I was on the job, and I do not want to be conflicted or confused or misconstrued with any of the statements made, and the report is the best thing to give, which is an actual record of what took place at that time. 1766

Q. Well, the situation is this, that you have no distinct recollection about this affair at all? A. About which affair?

Q. Wait a minute, about this affair at that time, the *Willdomino* at Halifax, and it is therefore necessary for you to look at your report to refresh your memory as to what had happened? A. Absolutely. If you had handled 700 cases in the meantime——

Mr. O'Neill: I move to strike this out.

The Witness (continuing): We handle a case day. How do you expect me to remember every detail. 1767

Q. I don't expect you to. A. I should say not.

Q. You wrote several letters about this matter to different people as to your views, about what took place at Halifax? A. I wrote letters in the ordinary course of business, but I object to them being brought into an inquiry of this kind.

Q. Do you recall who some of those people were you wrote those letters to immediately after

1768 this survey was held concerning your knowledge of that commodity that was in the No. 1 hold, and as to when you first found out that there was citrate of lime there? A. Well, we knew there was citrate of lime there when that small plan was made. I knew it on the afternoon of the boat coming into Halifax.

Q. Are you prepared to swear now that it was on the afternoon of the day the boat came in that you first learned that there was citrate of lime in that lower hold? A. I learned of it as soon as I saw the cargo plan.

1769 Q. Are you prepared to swear that you first saw that cargo plan as early as the afternoon of July 27th, the day that steamer arrived? A. As a matter of fact, the contents of No. 1 hold were discussed early in the morning.

Q. Of that day? A. Of that day.

Q. Who were present at that discussion? A. There would be the Captain and the mate.

Q. Who else? A. Captain Hall and the interested people—I don't know who. There would be those who would be standing by in a case like that. There was a dozen or more people around the boat.

1770 Q. Was the man present at the time, who you said was in the photograph with you, showing the bulkheads being opened up? A. You are talking now of three or four days after.

Q. My question can be answered by you "yes" or "no". It is a simple question. That man I refer to was or was not present? A. Which man do you refer to?

Q. The one you referred to, Captain Gilboy? A. He was not there when I went off to the ship the first morning.

Q. When did you first see Captain Gilboy? A. 1771
I met him an hour after when I came back.

Q. On the morning of the 27th? A. On the morning of the 27th.

Q. And a conversation took place between you and Gilboy? A. A conversation?

Q. Yes, not the words, but give us the substance of any talk that took place between you and Gilboy? A. Well, I told him, I recommended the ship be brought alongside the quay.

Q. Was that your first recommendation in this case? A. Just get the ship alongside the quay where work could be carried out quickly.

Q. What work? A. Whatever repairs we were 1772
going to do.

Q. Was any work concerning the discharge of that cargo in No. 1 hold talked about in that interview with Gilboy? A. I did not talk about discharging the cargo.

Q. Did you recommend at any time that the cargo be discharged at Halifax from that No. 1 lower hold? A. I do not think it was discussed.

Q. It never came up? A. Well, it came up insofar that when the suggestion of divers was made that was the only way to get it out through diving down for it.

Q. What was the size of the bales of cork that 1773
you saw floating around in the hatchway of the lower No. 1 hold? A. Oh, they would be about four feet by two feet six.

Q. Well, that would be two feet six square on the small end by four feet by two feet on the long face? A. Yes.

Q. Did you see any water in the way of the hatch there? A. Yes, the water was the same hight, naturally, in the hold as it was outside.

Q. My question is simple, sir,—did you see any

1774 water in the way of that hatch? That is all I have asked you. A. There was cork jammed up in the hatch with water in between. The cork was floating on the water, jammed in the hatch.

Q. Loose bales of cork floating in the open hatchway, is that correct? A. Yes.

Q. Do you recall the size of that hatch? A. No, I do not recall it.

Q. Can you approximate it? A. Oh, the hatch would probably be 20 feet by 16 or thereabouts.

Q. What difficulty would there have been in getting those bales of cork out through a hatch
1775 of that size, considering the size of the bales? A. What difficulty?

Q. Yes. A. There would have been the difficulty of slimming it out and the breaking of the bales, the cork floating away having to be gathered up.

Q. Well, you say it was impracticable to get that cork out of that ship? A. You could get the cork out. The cork was the easiest thing to get out.

Q. There was no trouble getting the cork out, the difficulty was I understand getting those barrels of citrate that were below there? A. I should
1776 not think it would be very difficult to get them out.

Q. Is that the situation, as I have stated, there was no difficulty in getting the cork out, but what was troubling you was the difficulty of getting these barrels of citrate out? A. I would not say there would be no difficulty in getting the cork out. There is difficulty with any cargo that is submerged more or less. There was cork jammed in between the 'tween decks.

Q. Would you say it was not practicable to get

the cork out? A. The cork could have been got out if we had taken time enough. 1777

Q. How much time? Did you discuss this with Mr. Hemsley at all, of Halifax? A. Yes.

Q. Is it your opinion there would have been any practicable difficulty in getting that cork out? A. Oh, we put the question up to the salvors and they gave us——

Q. I am asking you for your opinion.

The Witness: Put the question over again.

Q. Is it your opinion there would have been any practicable difficulty in getting that cork out? A. Yes, there would have been difficulty. 1778

Q. Well, to what extent? There would be difficulty getting anything out, would there not? A. Certainly, there would be difficulty with any cargo that is submerged or partially submerged.

Q. Were you there at the time Captain Hall was there? A. Yes.

Q. Were you there at the time Mr. Moon was there? A. Yes.

Q. You saw conditions in that hold as they saw them, did you not? A. Yes.

Q. Is it your opinion the water came right up flush with the 'tween deck? A. The water came up to the same height as it was outside of the ship. 1779

Q. My question is still, sir, that you stood there looking into that open hatch, and I ask you is it your testimony here that that water came up flush in that hatchway, flush with that 'tween deck? A. It floated the cork up flush with that hatch.

Q. Do you know how far below the 'tween deck

1780 that water was, the top of the water? A. Well, the water would be the same height there as outside.

Q. Well, I am asking you now? A. If she had drawn 20 feet outside you would have about 16 feet of water in that hold.

Q. What was the depth of that hold? A. The depth of the hold would be about 16 feet.

Q. So that, in your opinion, the water came right up flush with the 'tween deck? A. It was difficult to say how high the water came up because the cork was floating on the top of it, that is, these bales were about four feet—you could
1781 not say to a foot or two how high the water was.

Q. Are you prepared to say the water was up flush with the 'tween deck or somewhat below it? A. I should say it would be somewhat below it.

Q. Are you able to say how much below? A. I could not give an estimate.

Q. Not at all? A. No.

Q. Did you see the water at any time? A. I don't know that I did. I may have seen it in between the cork.

Q. Did you see it or observe it sufficiently to say how far below the 'tween deck the top of that
1782 water was? A. No.

Q. To what extent did that water drop in the No. 1 hold after you trimmed the vessel and she was ready to leave Halifax? A. Well, that water was dropped some four feet, or it would drop more, it would drop about six feet.

Q. Are you prepared to say how far below the surface of the 'tween deck it was before you reached the top of the barrels of citrate of lime? A. I could not say.

Q. Did you see any sardines in that lower No. 1 hold there on top of that cork? A. No.

Q. Where did you get this stowage plan you produced here showing sardines on top of that cork? In the No. 1 hold? Look at it. Now you say there was none there. A. I did not say there were none there. 1783

Q. Did you see any there? A. There were cases there.

Q. Did you see any sardines there in that No. 1 hold? A. I saw cases there.

Q. In that lower hold, No. 1? A. When?

Q. I am speaking of the lower hold, not 'tween decks, now? A. I did not see any cargo in the lower hold.

Q. None at all? A. I saw the cork, what was sticking up of it. 1784

Q. Where? A. Sticking up through.

Q. In the way of the hatch? A. In the way of the hatch.

Q. Did you see any cases of sardines floating up in the way of that hatch? A. There were cases of some kind, but I don't know what was in them.

Q. Where were they? A. In the No. 1 hold.

Q. In the lower hold I am talking of. Were they in the lower hold? A. Well, they were in the hold; I don't know whether they were in the upper or lower.

Q. Was not your testimony here a moment ago that when you looked down there, all you could see was what you saw in the way of that hold, was it not? A. Yes. 1785

Q. And you could see nothing else that was in that lower hold except what you saw there in the open way of the hatch? A. Yes.

Q. Going into the lower hold? A. Yes.

Q. Did not you tell us that all you saw there was cork? A. That is the principal part was cork.

1786 Q. Did you in your answer before, on your direct examination and at the beginning of my cross, say the principal part was cork, or did you convey to us in clear English that all you saw there was cork in bales or broken loose in some manner, floating there? A. The principal cargo as I viewed it was cork in bales and broken.

Q. What else did you see, now, besides cork? A. I do not remember what I saw. There is the plan there, that was copied from the original plan, cargo plan.

Q. Well, tell us all again, Captain, now in your
1787 own language what you saw when you looked in the way of that hatch? A. I saw bales of cork.

Q. What else? A. I don't know that I saw anything else.

Q. Did you actually see anything else? A. There may have been cases there. I don't just recall it.

Q. Would it help you any at this late day to tell you that, in practical language, this Exhibit, Claimant's Exhibit K—which also shows the sardines were supposed to be on top of the bales of cork, the same as this exhibit already produced here known as Claimant's Exhibit Z—that when
1788 Mr. Hemsley was shown this cargo plan, known as Exhibit K which which also shows sardines on top of the cork, that Hemsley said the sardines were not there and that the plan was wrong: does that help you any in stating now positively what you saw in that hatchway?

Mr. Sprague: I object to that question as entirely improper, and being a wrong conclusion attached to the testimony of Mr. Hemsley.

Mr. O'Neill: I will stand on the record of Mr. Hemsley in the hope hat I have attempted to show clearly the thought he conveyed, that that plan was not right, referring now to Exhibit K, and that it was not the plan that was shown to him at the time. 1789

Mr. Sprague: Counsel for claimant agrees that Mr. Hemsley testified that in his opinion the plan produced and marked Claimant's Exhibit K was not the plan that was shown him, but objects to any other conclusion being attached to his testimony.

1790

By Mr. O'Neill:

Q. Now, does that help you any, the statement as I have put it—whether rightly or wrongly, I have to stand or fall, but Mr. Hemsley said the sardines were not there? A. I do not see that I have anything to do with what Mr. Hemsley said.

Q. What is your view? Were there sardines there or not? A. I presume there would be somewhere in the fore hold. As to where they were I don't just exactly know. I was not concerned much with the sardines. I was concerned with getting the bulkhead shored. We had found out we could not do anything else but shore that bulkhead and get the ship out as quickly as possible in the best interests of everybody. Whether they were sardines or anything else, it was evident we could not get it out without wasting three weeks or a month. 1791

Q. How long would it take you now to remove that cork from that hold? A. The time given to

1792 us by the salvor (and it was only verbal, they would not put it in writing) was three weeks at the least, to discharge that cargo intact right down to the bottom.

Q. It could have been done in three weeks in Halifax? A. I do not say that. They only gave us that verbally. It all depended on the nature of this stuff at the bottom.

Q. Did you know anything about the nature of the stuff at the bottom? A. I knew no more than what it said on the cargo plan.

Q. And that is all you know, is what is written on this paper that you produced here today and
1793 which says barrels of lime citrate? A. Yes.

Q. That is all you know? A. That is all.

Q. Did you know how high those barrels of citrate came up in the hold in No. 1? A. No, I did not know. I could not say that I do know.

Q. Did anyone give you any information on that subject? A. No.

Q. Did you know the quantity of that citrate of lime that was there? A. No, I did not even know the quantity of it.

Q. Did you know whether it was in barrels or casks? A. Some said it was in casks.

1794 Q. The stowage plan given you said it was barrels, did it not? A. Yes.

Q. There is a difference between barrels and casks, is there not? A. Yes.

Q. Barrels might take water quickly? A. Yes.

Q. Casks might not take it at all, is that true? A. Well, or vice versa, it would all depend. The barrels would get some damage, or casks, whatever they might be, with the ship going ashore.

Q. What damage would the casks get by reason of their being submerged?

Mr. Sprague: I object to this unless the exact type of casks used in this instance is specified. 1795

A. I don't know what damage they would get.

By Mr. O'Neill:

Q. You do not know anything about that, do you? A. I don't know anything about it.

Q. And you did not know anything about it at the time? A. I knew the stuff was there.

Q. Did you know anything more about it at the time the stuff was there and that this survey was going on than you do today? A. I knew just about as much; the stuff was there and it could not be gotten out under three weeks or a month if it was ever gotten out under water. 1796

Q. And as to what condition it might be in at the time you were there or three weeks later, you do not know? A. No. I would think it was destroyed when the ship first grounded and the water got amongst it. That is my opinion and everybody else's opinion.

Q. That is the opinion of everybody that was there as well? A. I should think so.

Q. When you say "the stuff" you are referring now to that citrate of lime? A. Yes. 1797

Q. That was in the bottom of lower No. 1 hold? A. Yes.

Q. Was this situation as to the cargo, generally speaking, discussed there at the time between you different parties present? A. The cargo plan was examined and the thing was discussed, naturally, when we had the salvage company in. The diver wanted to see this stuff, learn something of the nature of it, and that was the reason of

1798 their reticence in sending divers down to get it up, and the length of time they mentioned as to three weeks, and that was only verbal, and they would not give us anything in writing.

Q. And it was not worth while delaying and risking damage to the other perishable cargo and hold the ship there to get out that stuff there that had been destroyed? A. I should not consider it wise to hold the ship there.

Q. Under those circumstances? A. Under those circumstances.

Q. You have some photographs showing that
1799 Captain Gilboy was there later, when you were putting up the shoring? A. Yes.

Q. Was Captain Gilboy present at these different discussions with the salvor and with you and with Captain Hall and Mr. Moon and Mr. Hemsley, when plans and ways and means were adopted as to the handling of this situation? A. Yes.

Q. Who was Captain Gilboy representing, do you know? A. So far as I know he was representing the owners.

Q. What owners? A. The owners of the *Willdomino.*

1800 Q. Did you know that he went up specially from New York to represent them on the arrival of the ship in Halifax? A. I heard that.

Q. Did you take all responsibility entirely for what was done there at Halifax on your own shoulders, or was it done on Captain Gilboy's orders, or on whose orders was the thing done? A. Well, I should say it was done on the owner's representative.

Q. On his orders? A. Yes.

Q. Captain, did you ever write to anybody in this case and state that if you had known that

this cargo of citrate was as valuable as it turns out it is, that your recommendations in the matter would probably have been different? 1801

Mr. Sprague: I object to this, as there is no proof as to what its value is.

A. I have no recollection of any such thing.

Q. Did you ever believe that to be so? A. No, I do not think the thing could be handled in any other way than the way we handled it, which was the shortest, quickest and best in the interests of everybody.

Q. Did Mr. Hemsley or his general agent at Halifax, Captain Gilboy, ever urge that the vessel be continued on to destination as quickly as possible? A. Well, naturally he wanted to get the ship to her destination. There was no use keeping her there in Halifax. We could not get a dry dock. We might have kept her there three months. There was no prospect. The best thing was to get her to New York, where there were dry docks and facilities for handling the cargo quickly. 1802

Q. There was plenty of dock space in Halifax at the time to accommodate that cargo if it was decided to unload it, was there not? A. Oh, any amount of dock space. 1803

Q. Were you located and living in Halifax at that time? A. Yes.

Q. Is your home there now? A. Yes.

Q. Are you certain that there was a strike on there at that time? A. To the best of my belief there was.

Q. Are you sure of that? A. There was some labor dispute there, and the yards were not working their full time. I know that.

1804 Q. That is, the shipyards? A. Yes.

Q. There was some labor dispute pending at the time in the shipyards? A. Yes.

Q. Where else? A. I don't know.

Q. Was it anywhere else that you know of other than in the shipyards? A. I don't know that there was any other dispute than at the shipyards. In any case, we could not have got the dry dock. It was not available.

Q. So the strike had not anything to do with it, had it? A. Well, it partially had to do with it. The main thing is the dock was not available. There was a ship in the dock heavily damaged.

1805 Q. That was the principal reason, was it not? A. That was the principal reason.

Q. Did you personally know anything about the different properties in this citrate of lime, and what the effect would be of their being taken out at Halifax, and whether or not they could be saved in that way or not at Halifax? A. No, I cannot say I knew much of the properties of it. It might have been solidified or might have dissolved, or one hundred and one things might have happened.

Q. Do you not know what shape it was in in

1806 those casks? A. No.

Q. Was there anyone present at any of these conferences who appeared to know anything about it, or give any valuable suggestions as to its traits and characteristics? A. No, I don't remember, no.

Q. Was anyone there—— A. No, a special expert?

Q. Aside from any special expert, was anyone present at these conferences who appeared to know anything about the properties and peculiari-

ties of this citrate of lime? A. No, I don't think 1807
there was.

Q. You made a recommendation that the ship go on to New York after temporary repairs were made and the cargo discharged and the vessel drydocked, did you not? A. Yes.

Q. Convoyed by a tug? A. Yes.

Q. And that the cargo be discharged and the ship be drydocked? A. My recommendation ended with the vessel arriving in New York and then she came under other authorities, and they would have to use their best sense.

Q. May I see your report again please: when 1808
the vessel left in your opinion there was certainly less than 10 feet of water in No. 1 hatch, was there not?

Witness: Less than 10 feet?
Counsel: Yes?

A. Oh, I could not say that.

Q. What was the depth of that hold from the 'tween deck down? A. That hold might have been 12 feet. I don't know the depth of the tank top. We had no way of finding the depth of the tank top.

Q. Did you not say before there was a total 1809
of 16 feet? A. Well, I know the vessel would be drawing about 15 forward, then you must take the depth of the tank top, the tank top may be three feet, and there may be 12 feet of water there. There may be 12 feet at the fore end and there might be 13 at the after end, because the ship was by the stern.

Q. If she had 16 feet in her lower hold, which you say was the most she had in her, because it would take 16 feet to run it up to her 'tween deck, would it not? A. She had the same height

1810 of water inside of her as she had outside of her when she came in.

Q. And it was reduced by about 6 feet when she was going out? A. I would say 4 to 6 feet.

Q. That would bring it down to the vicinity of 10 feet going up? A. It would bring her down in that vicinity.

Q. What would be the next move when that vessel got to New York so far as your organization was concerned, after you had passed her to another jurisdiction? A. Well, I suppose that they would discharge the cargo, put her on a dry dock.

1811

Mr. Sprague: I object to this as not responsive to the question.

By Mr. O'Neill:

Q. Is it not usual for you to make a recommendation when you give a vessel a temporary certificate, to make further recommendations that on reaching destination certain things must be done immediately? A. Well, we would leave that to the people at destination.

Q. To say whether she should be dry docked

1812 immediately, is that correct? A. Yes.

Q. There was no attempt made to drop down a collision mat at all? A. No, I don't think it would have been any use.

Q. Were you aware of the fact that Mr. Hensley, the agent for the ship in Halifax, that is, the general agent for the ship, representing Pickford & Black, was of the opinion as late as July 29th that there was nothing but cork wood in that lower hold?

Mr. Sprague: I object to the question for the reason that it attempts to specify Mr. Hemsley's agency, and also attempts to state a conclusion as to his knowledge on a certain day, which in counsel's recollection is not correct. 1813

A. No, I was not aware of that.

Q. Are you able to give us any possible information as to just when you first learned that there was citrate of lime in that No. 1 hold? A. I heard them discussing it on the ship as the contents of the cargo, as to what was in the top and the middle and in the bottom of the hold, and I subsequently saw it on a plan, presumed to be a cargo plan. 1814

Q. Did Captain Gilboy at any time tell you that there were considerable lemons on board, and asked you to do all in your power in order to expedite the sailing of that vessel to New York to save those lemons from perishing?

Mr. Sprague: Objected to as hearsay.

A. He certainly made mention of there being perishable cargo on the ship.

By Mr. O'Neill: 1815

Q. As a matter of fact, Captain, now, did he not refer to these lemons that were still apparently all right and in good condition, except for a few cases that were damaged by slight contact with water or sweat or something; and did he not, in order to save and protect those lemons, ask you to do everything you could in your power to expedite the departure of that ship to New York, to her destination?

Mr. Sprague: Same objection.

1816 A. He might have mentioned that he thought it better to have the ship in New York as quickly as possible and that she had perishable cargo. So far as the perishable cargo went, she had perishable cargo in the No. 1 lower hold. I take it she had all perishable cargo for the matter of that.

Q. As a matter of fact, the cargo in No. 1 lower hold had perished, had it not? Was not that the consensus of opinion of everybody there? A. I suppose it would perish, and no doubt it did, when the water first got to it.

1817 Q. That was the opinion of everybody there, including Captain Gilboy, was it not? A. I don't know what their opinion was. I am only speaking for myself. It would not make it any better by having been submerged in water.

Q. It would have been very costly to have used the divers to take that cargo out at Halifax, would it not? A. Yes, it would have been a pretty costly job.

Q. Was that discussed with Captain Gilboy? A. Yes.

Q. Between you and Gilboy? A. Discussed with us generally.

1818 Q. Did you know that the top tiers of casks of the citrate of lime were dry when the ship came into Halifax?

Mr. Sprague: Objected to as putting evidence in the mouth of the witness.

Mr. O'Neill: I am asking him, did he know it. I am endeavoring to get his views as to whether he knew it.

By Mr. O'Neill:

Q. What about that, Captain? A. Well, it does

not alter the condition of what the other tiers would be which were submerged. 1819

Q. Please answer the question, yes or no, if you can; did you know that the top tiers of casks of the citrate of lime were dry when the ship came into Halifax? A. No, I did not. They were stowed in the wrong place, anyway, in the ship.

Q. As a matter of proper stowage, considering the weight of citrate of lime, and considering the other cargo the ship carried, where and how should the citrate of lime have been stowed to have been regarded as properly stowed?

Mr. Sprague: Objected to as being asked of this witness, not qualified on the question of stowage of cargo. 1820

Mr. O'Neill: He is qualified.

Mr. Sprague: And not proper cross-examination.

Witness: What is the question.

By Mr. O'Neill:

Q. As a matter of proper stowage, considering the weight of citrate of lime, and considering the other cargo the ship carried, where and how should the citrate of lime have been stowed to have been regarded as properly stowed? A. It would have been better to have been stowed in No. 2 hold or some of the after holds. 1821

Q. Did you know that there was citrate of lime stowed in the No. 3? A. I would not know any more than what the cargo plan showed. We were not concerned with No. 3. We were dealing with No. 1.

Q. Well, your answer is you did not know. A. I knew according to what the cargo plan showed.

1822 Q. Look at your cargo plan, and see if that refreshes your recollection as to what was in No. 3, if there is any of that citronade in there? A. Yes, there is something on the top here, what do you call it, citrate, up on the 'tween decks.

Q. Did you know what that was or what it is? A. I suppose it is what it is.

Q. Well, I will admit that. A. I don't know. I did not see it. I never opened a barrel of it.

Q. Do you know what citronade of lime is or what it looks like? A. No, I do not.

Q. Do you know what citrate of lime looks
1823 like, this commodity that was in the bottom of No. 1 hold that you say should not have been there? A. No.

Q. You never saw any of it? A. I never saw it.

Q. Do you know whether it is a liquid or solid? A. I should say that it would be a solid.

Q. Like ordinary unslaked lime? A. That is what I should take it to be.

Q. That is, just a powder? A. If it was a liquid it would assimilate with salt water and would run out. There would be nothing to fight about, probably, and part of it dead.

Q. You were of the opinion at that time as
1824 well as the others in conference with you that it was about the same as unslaked lime, and contact with water would destroy it, is not that true? A. Yes, that was mentioned at the time.

Q. Do you remember now, of your own recollection, whether it was this stowage plan you saw at the time that is marked Claimant's Exhibit K, is that the paper that was shown to you, can you recall, or was it a different shaped paper, different sized paper, or was it that? A. I could not say.

Q. You cannot recall? A. No, I cannot.

Q. Do you know whether Captain Gilboy knew that there was citrate of lime in No. 1 hold in the course of these discussions at Halifax? 1825

Mr. Sprague: I object to this on the ground that it calls for hearsay testimony, something about which the witness could not know.

Witness: Whether he knew it? Oh, yes, he knew it.

Q. I understand you to say that if it were deemed advisable by Captain Gilboy to take that cargo out, there was plenty of pier space available at that time to put it on? 1826

Mr. Sprague: Objected to the form of the question.

A. Well, there was plenty of pier space at any port.

Q. There was some at Halifax at that time? A. Well, as there always is. By pier space I mean pier space. I don't know anything about enclosed spaces such as sheds or any special spaces that might be necessary for taking this apparently valuable cargo. 1827

Q. You did not know at the time the vessel was in Halifax anything about the value of the citrate? At that time I am speaking of now? A. No, we understood it was fairly valuable stuff.

Q. Have you given any testimony in this case before at any place? A. No, and I have not had an opportunity of refreshing my memory of talking the case over with any of the other parties that are interested in it. These inquiries have

1828 been sprung on me. I am 800 miles away from my headquarters in Halifax, therefore I am not as well posted as I might have been had I had notice of this giving of testimony.

Q. Captain, I want to ask you this, and I would like to have you give it special consideration before you answer it: Did you consider at any time that it was unfortunate that the cargo owners were not informed that the citrate of lime was wet in order that you might have known what the real value of the citrate of lime was; and had you known in that way that citrate of
1829 lime was as valuable a commodity as it is that that might have changed your plan of action in the matter?

Mr. Sprague: Objected to as incompetent and irrelevant and immaterial, also calling for a mere speculation and a state of mind.

A. I don't think it would have made any difference in the matter.

Q. Was there anyone present there at these conferences, of which you were a part, at Hali-
1830 fax, at the time the ship was there and you were considering what to do with her, that knew the effect of salt water on citrate of lime, that is, I mean these conferences at which Mr. Hemsley, Mr. Moon, Captain Hall, Captain Gilboy and yourself were present? A. The general conclusion we came to was that the citrate of lime would be damaged by coming into contact with water in the first place, and would lose a great deal of its value. Some thought that it would be soluble in water, dissolve, and a great part

of it would pass out through the bottom of the ship. 1831

Q. And as you testified in your examination a moment ago, the result was that you all believed that the thing was destroyed in the first contact before the ship got in? A. Probably was, for anything we knew. You have no evidence to the contrary.

Q. That was the general opinion? A. The general opinion.

Q. Of this conference? A. Yes. No special conference. If any cargo was wet it would be more or less damaged, without you have got some extraordinary special thing in this citrate of lime. It was not marked in any special way as being so valuable. 1832

Q. Did you say it was not marked? A. So far as I know.

Q. And, as a matter of fact, you do not know anything about it, do you, as to how it was marked? A. Well, I probably don't know anything about it, but was there any special mark on it?

Q. You are testifying; I am asking you now. As you are volunteering about special marks, do you or do you not know anything about whether there were special marks on the citrate of lime to show it was valuable or not? A. So far as I know there were no special marks on it. 1833

Q. Now, then, tell us what you know about it and what position you are in to know about it one way or the other? We can put it that way. A. Because, if there had been any special stowage, it would have been marked on the cargo plan, and the cargo plan that was shown to me had no mention of it.

1834 Q. That is the only information you have to base that statement on? A. That is the only information.

Q. And this is the cargo plan you are referring to now that shows sardines stowed on top of the cork wood which you did not see there, is that correct? A. Leave the cork wood out of it. We are dealing now with the citrate.

Q. I am asking you. You are referring to this same stowage plan now that shows sardines on top of cork wood, and you did not see any sardines on top of this cork wood at all.

1835 Mr. Sprague: Objected to as argumentative. He has testified as to what he saw.

By Mr. O'Neill:

Q. That is the plan you referred to, is it not? A. The plan that was shown me down there is the one I am dealing with. I do not know whether this is the same plan or another one.

Q. I am speaking of the plan that you produced here yourself? A. Well, that was a copy of the plan I saw. There was no other mention of any marks, or special marks, on those barrels
1836 or casks, whatever they were.

Q. Did you, as an expert surveyor, at the time comment on the fact that the citrate in casks stowed in that No. 1 hold should not have been there, in keeping with proper stowage?

Mr. Sprague: Objected to as incompetent, irrelevant and immaterial.

By Mr. O'Neill:

Q. Did you make any comment on that at the

time when you first saw the stowage plan you have produced? 1837

Mr. Sprague: Same objection.

A. I made no comment about it.

Q. Did you ever see a stowage plan yet of a steamer where it contained a full description of values of the cargo stowed and the peculiar properties of each of these commodities as stowed, on the plan? A. Well, in certain cases, yes.

Q. Can you produce one stowage plan that has ever been presented to you in your history or career as a surveyor that is prepared along the lines I have just stated to you? 1838 A. Government stuff is all marked.

Q. Can you recall anywhere that is not Government stuff, ordinary merchandise like that here? A. Yes, lots of cargoes are marked to be stowed away clear of boilers or to be stowed in a dry place.

Q. Is that marked on the plan? A. It is marked on the barrels. And whatever the contents are, and there is a note kept of it.

Q. You complain here that this stowage plan showed no indication of the value of this citrate of lime? A. No indication.

1839

Q. Now, then, I ask you, where did you ever see a stowage plan that did have the values of the cargo spread on that stowage plan? A. Well, it all depends on the nature of it. I have seen cargoes where they carried currency notes and postage stamps. Nobody knew the value of those. They were in a special room and were locked up, but in this case citrate of lime is evidently a very valuable thing and was shipped aboard the ship as an ordinary cargo. It might have been worth $50 a barrel or $1,000,000 a barrel.

1840 Q. Do you think the citrate of lime should have been put in the strong box of the ship? A. No, I certainly do not, but it should have been put away clear from the collision bulkhead.

Q. Do you know what time Captain Gilboy arrived here, how long before the ship herself got in?

Witness: In Halifax?

Counsel: Yes.

Mr. Sprague: Either before or after? I object to the form of the question.

1841 A. Captain Gilboy, I think, was in Halifax the same day the ship got here.

By Mr. O'Neill:

Q. He was aboard her that morning when you went aboard? A. No, I do not think he was. I saw him when I came ashore. I was first aboard.

Q. Have you written anywhere in your reports a statement that the diver said to you that nothing could be done? A. The diver told me nothing could be done by patching on the outside, and which I quite believed.

1842 Q. Will you answer my question?

Witness: Will you repeat that question?

Q. Have you written in your report? It is quite clear. A. I think I have. Let us refer to it and see.

Q. Well, you refer to it and see. A. This is what I have got in my report, that the diver reported "Stem bow broken at 5-foot mark and shoved back, together with plating and floors. The two floor spaces abaft collision bulkhead, not

practicable to patch or plug from outside." That 1843
is incorporated in my report, which is official and final.

Q. But you did not report anywhere in your official report in writing that nothing could be done, only that certain specific things could not be done; is that correct? A. Well, I reported as the diver told me.

Q. That certain specific things could not be done; is not that true? A. Yes.

Q. Did you say there was a shortage of lumber in this port for sealing up the No. 1 hold? A. I was assuming that.

Q. Where did you get that information from? 1844
A. I got it from the salvor.

Q. What were you assuming? A. I was assuming that that was the reason for saying that they would be ten days in sealing up the hatch. If they had any other reasons, well, that was their business.

Re-direct examination by Mr. Sprague:

Q. Mr. Wilson, I understand you to say that in your opinion this citrate of lime should not have been stowed in lower No. 1 hold. Now, 1845
why should it not have been stowed in lower No. 1 hold? What is your reason for making that statement? A. Well, if it is supposed to be a very valuable cargo it could with advantage be stowed in any other hold. The No. 1 hold adjoins the collision bulkhead, where, you may say, two-thirds of the damage—if a ship gets damaged—she gets around that collision bulkhead, which is why it is called the collision bulkhead.

Q. And it is because of the value of the stuff

1846 that you say it should not have been put there? A. The value.

Q. If the citrate of lime was delivered to the ship without any notation as to value, would there be any reason why it should not be put in No. 1 hold?

Mr. O'Neill: I object to that on the ground as incompetent, irrelevant and immaterial.

A. No reason at all.

1847 *By Mr. Sprague:*

Q. Because cargo is often carried in No. 1 hold, is it not? A. Oh, yes.

Q. It is quite proper to have it there? A. Yes.

Q. You stated on cross examination that the cost of the divers was discussed generally with Captain Gilboy. Did the divers make any estimate as to the cost of discharging this cargo? A. No, it was not so much a question of cost as the time involved. As I said before, the least we could get was three weeks, and that was only given verbally. The divers or salvage company

1848 would give no written statement of how long it would take them. They anticipated trouble with this cargo. They said any cargo that is submerged—well, you could not blame the people if they could not give an estimate of how long it would take to get it out. They did not know the difficulties they were going into.

Q. So it was a question of time? A. Absolutely, it was time all through.

Q. You do not know what the opinion of the others was regarding this matter, except as they

expressed the same to you, did you? A. Just as expressed, yes. 1849

Q. And was there anyone of these people present, whom you have named as being present, that disagreed with the plan of sending her forward to New York as she was sent forward? A. There was no one disagreed at all. There was nobody there that represented this citrate of lime, no special representative.

Q. Except as it was represented by the Master and by the Port Warden? A. Yes.

Mr. O'Neill: I object to the using of the words "as it was represented by the Master or Port Warden," and I will reserve an objection on further grounds later on. 1850

By Mr. Sprague:

Q. You were not under the order of the Master of this ship at all, were you? A. Well, we are placed in this position, we will order nothing ourselves. We will approve what somebody else may order if we think it is all right.

Q. What did you mean when you said that the orders of the owners' representatives were taken here? I understood you to say that in cross examination? A. Yes. Well, the owners' representative usually orders things in connection with the steamer. 1851

Q. Did the owners' representative order the ship to go forward to New York, or did they request that it be allowed to proceed? A. They requested. They made the suggestion.

Q. And you approved of that suggestion, did you not? A. I approved of it as the quickest way. It was a question of time, not money. Time right through.

1852 Q. Do you still think that was a proper thing to have done, to have sent her forward to New York as she was sent forward? A. Yes, sir, I do.

Q. Did you take any soundings in lower No. 1 hold before she sailed from Halifax? A. No, we did not take any.

Q. So that the only way you arrived at the amount of water that was in that hold at that time is by—— A. What it showed on the marks outside.

Q. And that is contained in your report? A. Yes.

1853 Q. When you stated that the salvor said it would take three weeks to get the cargo out, did you mean the cargo in lower No. 1 hold, or did you mean all the cargo? A. No, in the lower hold.

Q. Lower No. 1 hold? A. Yes.

Q. You personally are paid directly by the Salvage Association, are you not? A. Yes.

Q. In this instance you were not paid by anybody else, where you, except the Salvage Association? A. No, I was paid by the Salvage Association.

Q. And that was true in the case of the survey
1854 on the *Willdomino?* A. Yes.

Q. Did you know anything about this citrate of lime except it was a solid?

Mr. O'Neill: I object to this on the ground that the witness should be asked what he knew, if anything, about the citrate of lime, and not lead him.

Mr. Sprague: He said he knew it was a solid.

Witness: We took it to be a solid and we knew that it was in barrels, or the cargo plan said it was in barrels. 1855

By Mr. Sprague:

Q. Did you know whether it was a dry solid or wet solid, or crystal or granulated, or anything like that? A. We took it that it would be some sort of granulated stuff.

Q. Had you ever had any experience before with it? A. No.

Re-cross examination by Mr. O'Neill: 1856

Q. As you look at that general cargo plan that you produced here yourself, with the one marked Exhibit Z of this date, and look generally over that cargo the way it is stowed and the different commodities that were on board the vessel, would you say that it would be more beneficial for the general trim of that ship to put that citrate somewhere further aft than where it was, considering its weight?

Mr. Sprague: I object to this question as irrelevant and immaterial. The question of the trim of the ship is not in issue. 1857

A. It could have been put anywhere else in the ship. I do not think it would have affected the trim. If it did it could have been counteracted with the water ballast.

Q. You have said a great deal here on your re-direct examination that it was not a question of cost, this taking out of cargo by divers or by any other means; that the entire question was a

1858 question of time. Now, time of what or whose time, or what time—tell us what you mean by that? A. Well, I should put it down as the ship's time, all interests concerned, even the owners of the citrate, whoever they were.

Q. Their time was not concerned, with the cargo destroyed at that time, was it? A. Well, it transpires that the cargo was not destroyed.

Q. I am just assuming. Not what transpired but what you fellows knew as is testified to here at the time before the ship left, not what subsequently transpired; I am talking now of what was known at the time when you were discussing
1859 the saving of time. You certainly could not have been having in mind the saving of the citrate's time, when the citrate as a practical factor in the world had ceased to exist, had it not at the time? A. It might or might not.

Q. Whose time did you have in mind, frankly, the ship's, or what? A. All interests concerned in the ship and the cargo, everybody's interest. We were acting there without prejudice in order to get the ship to her destination and get the cargo out as quickly as possible. The quickest way in our opinion to get that cargo out was to
1860 send the ship to New York.

Q. And have the cargo removed immediately? A. And have the cargo removed, or deal with the ship as they chose when it got there, under other expert advice. We merely handled the ship in Halifax. Our jurisdiction ended the moment she got out and got clear and arrived safely in New York. We were more concerned with the safety of the vessel as a whole than all she contained, and especially in No. 1—a small compartment, a very small compartment, compared to

the whole cargo of the ship, not knowing its value, taking it to be of average value. 1861

AND FURTHER DEPONENT SAITH NOT.

E. W. BUSH,
Commissioner and Official Stenographer.

I, the undersigned, Commissioner and Stenographer, hereby certify that the foregoing sheets, numbered from one to sixty-eight, inclusive, and being in all sixty-eight pages, are and contain a true and faithful transcript of the evidence of the above-named witness as by me taken by means of stenography. 1862

E. W. BUSH,
Commissioner and Official Stenographer.

1863

Deposition of James D. Peat.

1864

UNITED STATES DISTRICT COURT.

DISTRICT OF NEW JERSEY.

CITRO CHEMICAL COMPANY OF AMERICA,
Libelant,

—against—

Steamship *Willdomino.*

CHARLES P. PFIZER & COMPANY,
Libelant,

—against—

1865

Steamship *Willdomino,*
and Cross-Libel.

Deposition of JAMES DALTON PEAT, a witness on behalf of the claimant in the above entitled cause, taken at 89 State Street, Room 71, Boston, Massachusetts, on Tuesday, January 30, 1923, before John C. Miller, Notary Public.

APPEARANCES:

1866 Messrs. HUNT, HILL & BETTS (by Mr. BARRETT), for Claimant;

Messrs. HARRINGTON, BIGHAM & ENGLAR (by Mr. SINGLE), for Libelant.

STIPULATION.

It is stipulated that the testimony may be taken by a stenographer, signing, filing and certification being waived; stenographer's fees to be taxable.

JAMES DALTON PEAT, being duly sworn and examined as a witness for the Claimant, testifies as follows: 1867

By Mr. Barrett:

Q. What is your business? A. Ship and engine surveyor to Lloyd's Register of Shipping.

Q. You are in charge of the Boston office of Lloyd's Register of Shipping? A. Yes, in charge of the Boston office.

Q. How long have you been in charge of the Boston office? A. Since the 4th of December.

Q. Prior to that time where were you? A. I was in the New York office of Lloyd's. 1868

Q. In the New York office of Lloyd's Register? A. Yes.

Q. How long have you been connected with Lloyd's Register of Shipping? A. For seven years past—on the first of December.

Q. Doing what during that time? A. This same work—ship and engine surveying.

Q. And prior to that, tell us just in a general way what your experience has been? A. Well, I served an apprenticeship as an engineer on the Clyde in one of the yards there; and then subsequently I was sailing as a marine engineer, ten years in all. I hold a chief engineer's certificate and have sailed as chief engineer in big cargo steamers; and I worked ashore as foreman in the yards on the Clyde, and as a manager; and I acted as an inspector for a big oil company's plants, sending goods out to Burma and Persia. 1869

Q. How long have you been connected with shipping? A. All my life, you may say, since forty years ago.

Q. About forty years? A. Since I went to learn the business, yes.

1870 Q. In April, 1920, did you make a survey of the steamship *Willdomino*? A. Yes, sir.

Q. Tell us about that survey. Where was it held? A. It was held—well, I am just speaking from memory, I shall have to refresh my mind from these books and papers.

Q. Have you got the report of the survey or any notes of the survey before you? A. I have got some private notes here.

Q. You do remember making the survey? A. Yes, I remember making it perfectly well.

Q. You can refresh your recollection by referring to your notes and tell us where this sur-
1871 vey was held. A. It was in Robins Dry Dock in the Erie Basin.

Q. In the Erie Basin, New York? A. New York—Brooklyn, New York.

Q. And what was that survey for, what was it called for, do you know? A. Well, she had had some damage, due to this grounding here; and usually after a thing like that they put them in dry dock and have them examined and find what is wrong with them; and we attend there and see that the repairs are made and see that they are kept up to their class—up to the present
1872 status of what it was in the register book.

Q. Where was it said that the grounding took place? A. I must have been informed just when she went on the dry dock, that this boat was there. Usually we get that information from the captain of the ship or from the superintendent. I can't remember now who it was that gave it to me, but it was certainly what we call the "owner's representative," it was one or the other.

Q. The grounding was said to have taken place some time prior to the time when you were called to make the survey? A. Yes, they gave us those

dates, and then they showed us the log books— 1873
as far as I recollect, and we put down there "stated to have been sustained in January, 1920, due to heavy weather."

Q. Did you examine the vessel while she was in dry dock? A. Yes, I went around her carefully and looked her over.

Q. Tell us what that examination consisted of. A. Well, she stood in the dry dock, and they lifted her clear up, and then the men went around and scraped her, and then we followed them and examined all the plating; and you can see on the bottom if there are any leaking rivets. She 1874
has usually double-bottom tanks, and they are usually full when they are on the dry dock; and if there is any leakage, you see, these things begin to "weep," as we say—you can see the water oozing out; and if it is very bad you can see it squirting out.

Q. Did you order any repairs, as a result of this survey? A. We recommend them; we do not order them, we cannot order them; we simply recommend them.

Q. Did you recommend any repairs? A. Yes.

Q. Are those repairs mentioned on this paper headed "Lloyd's Register of Shipping—Damage 1875
Report"? A. Yes, they are.

Mr. Barrett: I offer this in evidence.

(The damage report is marked Claimant's Exhibit V, Jan. 30, 1923, J. C. M.)

Q. Do you know whether these repairs were subsequently made? A. Yes, sir; they were made.

Q. After these repairs were made, did you examine the vessel again? A. Yes, I examined her again.

1876 Q. And what report did you make then after you had finally examined her? A. Well, it is our business to make these reports on these forms here (indicating). This is a copy of them. These are sent to our London office.

Q. These are the reports you made? A. That is a copy of it, anyway. They are copied in a book in the New York office.

Q. Have you examined these reports? A. Yes, I have seen them.

Q. And these are correct reports of what you recommended? A. Yes.

1877 Mr. Barrett: I offer those in evidence.

(The reports, two in number, are marked respectively, Claimant's Exhibit W, Jan. 30, 1923, J. C. M., and Claimant's Exhibit X, Jan. 30, 1923, J. C. M.)

Q. I hand you a paper headed "Lloyd's Register of Shipping" and ask you what that is? A. This is a copy of the certificate that I issued at that time.

Q. What do you call that certificate? A. That is roughly known as a "seaworthy certificate."

1878 Q. Did you issue such a certificate over your own signature? A. Yes, sir; similar to that.

Q. This is a copy of it? A. Yes, sir, that is a copy.

Q. This has been signed by Mr. French? A. By Mr. French, to show that it is really a genuine copy.

Mr. Barrett: I offer this in evidence.

(The seaworthy certificate is marked Claimant's Exhibit Y, Jan. 30, 1923—J. C. M.)

Q. What parts of the vessel did you examine on this survey that you made? A. Well, I walked around the bottom, what we call the outside of the hull, and the propeller and the stern-tube, and the seacock fastenings. And then you go on deck and look around generally on deck. 1879

Q. What part of the machinery did you examine? A. It would just be the propeller and—well, the stern-tube—but that is more a part of the ship. The propeller is the part of the machinery that we usually see.

Q. About how many vessels have you examined in dry dock during your experience? A. Oh, I don't know; about three or four hundred a year. 1880

Q. And during that time have you examined vessels that contained cargo in them while they were on dry dock? A. Very seldom—very seldom.

Q. But you have examined some? A. Yes, one or two I have examined—part cargo; not full cargo; part cargo.

Q. Have you ever seen cargo discharged while a vessel was in dry dock? A. No, no, I have never seen that. If it was done, it would be done possibly for a slight repair or something of that kind, but not what you might call as a commercial transaction to hurry up the ship—I have never seen that. 1881

Q. Have you examined vessels in, and are you familiar with, floating dry docks? A. Yes.

Q. And from your experience with floating dry docks, would you say that a discharge of heavy cargo in a dry dock was a practicable matter—a practical, feasible commercial proposition? A. It is not a commercial thing. It could be done, you could remove anything there by erecting the necessary tackle and gear and lifting it out; but it is not a practicable thing—it is not anything

1882 that is done in practice. It is not commercial, and there would nobody do that as a paying concern.

Q. Would it cost very much more than the ordinary discharge? A. Oh, yes, enormously more. And then even when you have it up on the dock, what can you do with it? You have got to lift it again and put it in trucks or put it away somewhere.

Q. Do you know whether or not a floating dry dock concern would allow cargo to be discharged while a vessel was in a floating dry dock? A. I don't think they would.

1883 Q. Will you give us the reasons for that opinion? A. Well, as a rule, when these shipowners hand a boat over to dry dock, they are responsible for it. They usually have all the ballast tanks filled up with water, and they know exactly the trim of that ship; they must have a certain dead level; and if there is any cargo in, and if that cargo is shifted while she is in dry dock, the minute she floats, she might go like that (indicating a list). I have seen it once or twice with what they call a "slack tank," a tank that is not filled up tight—not full up; possibly when

1884 they had been on the dry dock, the engineers might have pumped some water out, and that left it slack—and I have seen it when it would go over in a list. And it is a dangerous thing to do. I would say, Never shift cargo or never shift anything, in dry dock.

Q. As a result of the survey that you made in April, 1920, did you recommend anything with respect to the continuance or discontinuance of this vessel's class? A. I recommended that she be continued as she was classed.

Q. And what was her class? A. I think it is

100 A1. It is in the register book. I have forgotten, it is just as it stands in the register book at that time. I think she was classed 100 A1. 1885

Mr. Barrett: That is all.

Mr. Single: I move to have all the testimony taken here stricken out as not binding on the defendants, the examination having been made at a time prior to the loading of the cargo and prior to the voyage in question. Furthermore, the witness has not shown himself qualified to pass upon the question of dry docking of vessels with or without cargo, because of his lack of knowledge of such docking. Subject to the above objection, I will cross examine the witness. 1886

Cross examination by Mr. Single:

Q. What was the reason for the survey that you made in New York, Mr. Peat? A. Well, I suppose it would be the owners; they saw she was leaking——

Q. I mean, what was the nature of the damage? A. The nature of the damage?

Q. The nature of the damage? A. Let us see. I will have to look at the papers. On examination, we found this damage here (referring to Claimant's Exhibit V). 1887

Q. It says that it was due to "heavy weather." That is what I am asking you about. Your impression was that it was due to stranding? A. No, I have got down here, "due to heavy weather."

Q. "Due to heavy weather"? A. Yes.

Q. Your first impression, that it was due to stranding, is an error? A. I don't remember saying it was due to stranding.

1888 Mr. Single: I think you did.

Mr. Barrett: He did, yes.

Mr. Single: That is what you said at first.

The Witness: I do not remember saying it.

Mr. Single: Yes, I am quite sure you did.

Q. That was an error? A. Yes. It was due to heavy weather.

Q. Do you know whether the engines were opened up for examination at this time? A. No;
1889 they were not, as far as I know. I was not called upon to see them, and I do not know that they were opened.

Q. If you had been making a thorough inspection of the ship, you would have opened up the engines and examined them? A. Not for this kind of inspection; it did not call for that.

Q. You were just called in to survey bottom damage due to leaks in the hull? A. Yes, to survey the vessel as she was on dry dock, due to these things. And it is our practice, unless we are especially asked and they say there is some-
1890 thing wrong with the machinery—except in that case, we do not go over it.

Q. Would you consider, from the damage that you found on this vessel, that she had encountered heavy weather on the voyage in question? A. Yes, I would.

Q. That she had been seriously strained? A. Yes, she had been strained to a certain extent, to have this damage here.

Q. What was that strain due to—the seas, or wind, or what? A. Oh, the heavy seas—the vessel laboring in the seas; it strains her a bit there.

Q. What was the nature of the damage; was it damage that you consider was due to panting, or pitching, or what? A. I don't know what the right word is for it—pitching, or just working of the ship—just starting it a little bit. 1891

Q. I see from the report that some of the damage was on the bow and some on the stern? A. Yes.

Q. What would that signify to you? A. On the bow, it is often where they start working; they roll, and they pitch, and that is the place that seems to give way first very often—on the bow.

Q. Would that cause the propeller to come out of the water and race? A. If she were deep loaded, it would not come out very far; but if the vessel were a light ship, it does come out then and would race a little bit. 1892

Q. Would the nature of the damage to the scarf and stern-frame indicate that she had been subject to heavy seas from aft? A. Yes.

Q. Following seas? A. That she had been in very heavy weather and had got strained a little bit.

Q. Following seas—did you consider that was the cause of it? A. No, you can hardly say that. 1893

Q. You can hardly say that? A. No.

Q. What would be the effect of the propeller racing, on the machinery? A. Oh, it makes a lot of vibration on the ordinary reciprocating ship. On the turbines I don't think it affects them so very much as far as I can understand.

Q. Have you had a great deal of experience with turbines? A. I have never sailed on them, but I have had a lot of experience examining them and surveying them.

Q. But just what the effect of seas is on them,

1894 you have no real experience of, of your own? A. No, not on turbine work.

Q. The only thing you know about turbine work is just the repairs that you have seen in port? A. Yes.

Q. If a vessel were put in dry dock with cargo in her, and all the cargo were taken out, would not the refloating of the vessel be just the same as if she had been put in the dry dock without cargo; could you not trim the tanks so she could go out without any list? A. You could not do anything until you saw her afloat—you couldn't be sure—you couldn't trim her right until you
1895 saw her afloat.

Q. Is not a vessel so built that if all her tanks are full she will be on an even keel when she is empty? A. Yes, that is the idea—that is what is intended—that is the idea.

Q. If you had a vessel in dock, and you discharged part of her cargo, and you had her tanks full, couldn't you tell whether or not she would go out on an even keel, if she was properly built in the first place? A. Well, that is the intention, that she should; but you are never just exactly sure of these things, and you never take your
1896 chances if you can possibly help it—that has been my experience.

Q. When you speak of its being a "practical" or "commercial" thing, you mean that it would not pay to discharge cargo in that way if you were running a ship line? A. No, it wouldn't—no, sir.

Q. You do not mean, by that, that if you had some specially valuable cargo, it might not pay to take that cargo out, even though it were somewhat expensive? A. It does depend on circumstances. You can do all these things, you can

take any heavy weight out of a ship by building the necessary tackle and gear. 1897

Q. Have you any idea what it would cost to make the necessary gear in dry dock to discharge a thousand pound weight? Couldn't that be done by the ship's winches? A. I don't know. It might be done. As far as I remember, these ordinary booms are not fitted for carrying out a thousand pounds—well, that is only half a ton?

Q. Yes. A. They could lift weights of that amount; a ship's winches lift up to three or four tons.

Q. Three or four tons? A. Yes.

Q. As a matter of fact, on dry docks do they not have traveling cranes to lift such weights? A. In the case of graving-docks that are practically solid in the ground, they can build solid railways on either side; but in these ordinary floating docks, they don't have that convenience. 1898

Q. Don't they have a way of lifting the vessel plates and carrying them back and forth? A. They put on just hoists and booms that are just suitable for that. These plates are never very heavy.

Q. What would you expect it would cost to erect a means of discharging half ton weights? A. I couldn't say, I wouldn't be very sure about that. 1899

Q. Would you say it would be $2,000? A. It all depends on the circumstances, the position and everything. There is hardly one case like another.

Q. Would you say it would cost as much as that? A. I believe it would be as much as that.

Q. Do you think it would be as much as $5,000? A. I don't know.

Q. You really cannot give an estimate? A.

1900 No. Another thing: When a boat is on the dry dock, these people take charge of it, and they won't allow any other party near it, anyway; and if they do anything like that—extra work—they really charge anything they like for it, outside of their contracts. Maybe that isn't just a part of this case, but that is how they do.

Q. But it is your opinion that it could be done if it was considered advisable? A. Yes, you can do anything like that, you can lift any weight, if you are prepared to pay for it and put up the gear and do it.

1901 Q. You never personally, then, examined the turbines in the *Willdomino?* A. No, sir.

Q. And you do not know what their condition was at the time you made this survey? A. Well, I assume they were all right. We usually know when they are not—they report to Lloyd's if there is anything wrong.

Q. But you do not know personally, except that no report was made to you, and you consider they must have been all right, or a report would have been made? A. Yes, a report would have been made.

Q. Because of the fact that owners ordinarily
1902 report these things? A. Oh, yes. And another thing—this is another thing—of course it is an enormous lot of work to examine a turbine. They are all closed in, and it means several days of ten or fifteen men working hard to get them opened, and it is a very expensive item; and they are not opened up only about once a year—that is, for survey.

Q. If a vessel is very busy, an owner will not have the turbine opened up, because of the length of time it takes? A. No.

Mr. Barrett: I object to the question on the ground that it is incompetent, irrelevant and immaterial and not within the scope of the witness's knowledge, and I move to strike out the answer. 1903

Re-direct examination by Mr. Barrett:

Q. When you made this survey and this recommendation that she be continued under her class was that done in the ordinary course of your business duties? A. Yes.

Q. Did I understand you to say during your examination that you did not believe that the dry dock people would allow cargo to be discharged in a floating dry dock because it might alter the trim of the vessel? A. They don't care about it, they object to that kind of thing. 1904

Re-cross examination by Mr. Single:

Q. Is their objection because of the fear of damage to the dry dock, or is the objection because of the fear of damage to the vessel? A. It is the fear of damage to the vessel, for which they are held responsible.

Q. But if the vessel owners said they would not hold them responsible, would they object then? A. Well, they don't care about having a dry dock used up like that. Usually they have a waiting list; and in busy times, they have no time for it, and it wouldn't pay them. And the Robins Dry Dock people speak in a very rough way and say the usual thing in certain language; they say, "We have no time for this, we want the dry dock for the next boat." 1905

1906 *Re-direct examination by Mr. Barrett*:

Q. Is there any danger to a floating dry dock if they have a thousand pound object fall from the height of the deck on to the floating dry dock? A. Yes, very likely you would break the floor of the dry dock.

Q. And what would happen then if the floor of the floating dry dock was broken? A. It would be put out of commission, you would have to get it repaired right away.

Re-cross examination by Mr. Single:

1907

Q. How do you mean that it would put it out of commission? Could not the floor of the dry dock be repaired without putting the dry dock out of commission? A. No, it would have to be repaired right away. When you lower a dry dock, you fill her up with water, and it sinks. Then you empty it out, and it rises. Well, it would remain sunk.

Q. Well, that would not cause the dry dock to sink. They have double floors. A. It would not sink at that time—not at that time, it would not sink; but then, when you lower it, and you

1908 want to raise it again, you would have to send a diver down to fix it.

Q. Well, if it was repaired while it was up, you would have no trouble? A. No, but it is a very expensive item, again.

Q. It would be a matter of expense really? A. Yes. When you touch a dry dock, you have to pay for it, that is all.

Mr. Single: That is all.
Mr. Barrett: That is all.

Claimant's Exhibit V.

(Copy)

LLOYD'S REGISTER OF SHIPPING,
PORT NEW YORK.

May 13th, 1920.

Cut—Lloyd's Register of Shipping.

THIS IS TO CERTIFY that James D. Peat, the undersigned Surveyor to this Society did at the request of the Owner's Representatives attend on board the Steel Screw Steamer "WILLDOMINO" of Vancouver, 5735 tons gross register, for the purpose of ascertaining the nature and extent of the damage stated to have been sustained in January 1920, due to heavy weather, while on a voyage from New York to Daulzig.

For further particulars see Log Books.

On examination on the 23rd April, 1920, the vessel lying on Robin's Dry Dock, Brooklyn, N. Y. found:

DAMAGE	RECOMMENDED.
A number of loose and started rivets in shell plating in way of fore peak and around stern frame also in way of No. 2 hold.	Defective rivets to be renewed.
Several defective rivets in rudder arms.	To be renewed.
Limber boards in No. 2 hold damaged and bilges choked.	Limber boards to be repaired and bilges cleaned.
Scarph of stern frame open on edges at after end.	To be electrically welded.

(Sgd) JAMES D. PEAT,
Surveyor.

Fee $35.00

This Certificate is issued upon the terms of
1912 the Rules and Regulations of the Society, which provide that:—

"While the Committee use their best endeavors to ensure that the functions of the Society are properly executed, it is to be understood that neither the Committee nor the Society are under any circumstances whatever to be held responsible for any inaccuracy in any report or certificate issued by the Society or its Surveyors, or in any entry in the Register Book or other publication of the Society, or for any error of judgment, default, or negligence of the Surveyors, or
1913 other Officers or Agents of the Society."

1914

Claim to W. Jan. 30, 1923 JCM

(Received at London Office) No. 18608.

REPORT of SURVEY for REPAIRS, &c.

Date of writing Report 17th May 1920 When handed in at Local Office 17th May 1920 Port of NEW YORK

No. in Eng. Book. Sup. 3873

Survey held at Brooklyn Date, First Survey 23rd Apr. Last Survey 24th April 1920.
(No. of Visits)

on the Wood, Iron or Steel S.S. "VILLDOMINO" Master

TONNAGE:—
GROSS 5755
UNDER DK. 5150
NET 4173

Built at Vancouver By whom J. Coughlan & Sons When 1919 (YEAR) 4 (MONTH)

Owners Port belonging to Vancouver

Owners' Address
(If not already recorded in Appendix to Register Book)

Surveyed Afloat or in Dry Dock? Name of Dock Robins. Destined Voyage

WB—Cell D Bor D Ba feet; u E & B feet; f feet;
Total capacity tons. FPT tons; APT tons; MT feet tons.

N.B.—All alterations in the existing records should be underlined.

If the Vessel has Water Ballast Tanks, state whether the manholes covers have been removed, and the tanks examined. Also state the amount of deterioration (if any) found to the thickness of the floors, framing, bulkhead, and of the inner bottom plating, especially in the boiler space.

Last Report, No. Port

Particulars of Classification (which cannot be described accurately on the Register Book & Supplemental)

CHARACTER.		Holdings and Initial Cubic Numbers
+100s1 8.19		+Z.W.C. 4.20

Surveyor's Freeboard (if assigned) as painted on Ship and now verified ft. in.

Particular Damage, when held, need be reported in detail and recorded in the forms of the Rules. State clearly the nature of Repairs, if any, and, in detail, the nature and extent of Renewals and subsequent repairs. Repairs on account of Damage (the nature of which must be stated) should be separated from Repairs due to other causes; and besides being detailed in the body of the report, should be summarized in the form shown below. Wherever the replacement of Anchors or Chains is reported, the particulars should be clearly stated in the space provided on back of this form. State also the date and initials of any letters respecting this case.

In Damage cases where the Surveyor has not made a special damage report he is required to state whether he offered his services for this purpose and to whom and why they were declined? Was a damage report made by anyone else? If so, by whom?

REPAIRS, OR EXAMINATION AS PER RULE, FOR Damage stated to have been sustained in January, 1920 due to heavy weather while on a voyage from New York to Danzig.

For further particulars see Special Damage Report. New York 13th May, 1920.

New Items:— Vessel placed on drydock, bottom and rudder cleaned, examined and zinced.

A number of loose and started rivets in shell plating in way of fore peak and around stern frame, also in way of No. 2 hold and in rudder renewed. Scarph of stern frame electrically welded on edges. Limber boards in No. 2 hold repaired and bilges cleaned.

SUMMARY OF DAMAGE REPAIRS:—	Plates.	Frames.	R. Frames.	Floors.	Beams.	Str. Plates.	Bk. Plates.	Other Items:—
Renewed								
Renewed and Faired or Required								
Faired or Required in place								

PRESENT CONDITION OF THE

Hull	Good	Stringers	Bilge, Plates under Sounding Pipes
Outfitting of Decks	"	Inner Bottom Plating	Engine Room Skylights
Waterways	"	State if Tanks have been examined inside	Coal Bunkers, Openings, Lids, &c.
Openings	"	State if Tanks are tested	Scuppers
Bunns & Fastenings	"	Bulkheads	Cargo Hatchways
Outside Plating	"	Caulking	Hatches
Caulking of Decks	"	Cement or Asphalt (Where used.)	Planking of Wood Vessels
Rivets		Rudder Good	Caulking
Breastbooks & Crutches		Steering gear and its connections	Trunnels
Transoms		Windlass	Breastbooks & Transoms
Frames		Have Pumps now been examined and found efficient?	Transoms, Fashions, & Counters
Reverse Frames		Have Sluice Valves now been examined and found efficient?	Timbers of Transom openings
Floors		Have Watertight Doors now been examined and found efficient?	Bilge Strakes and other planking
Keelson			Stringers, Clamps & Shelfs
			Ceiling (Where if ceiled.)

Copper, or Y.M. of Wood Vessels (Whether of one thickness or two, and Weight per sq. ft.)

Decks

Masts, Yards, &c. Good

Condition, how ascertained

(Whether of wood or composite construction) From deck

Hulls

Equipment below

Anchors, No. of

Cables (Whether of iron or composite)
Length
Size Length

Boats & Davits Good

Standing & Running Rigging

Ventilators & Coamings

General Observations, Opinion as to Class, Recommendation, &c.:—

State clearly whether any and, if so, what alteration is suggested to be made in the existing classification and notification of the vessel in the Register Book consequent upon this survey, thus, for example:—"..... to remain as now classed in the Register Book without [with] record of Survey," "to remain as classed and to have record of survey, 1,18," or "to remain as classed and to have record of survey, 1,18, and the notations of as No. 1-18 and PUMPS, &c."

The vessel is eligible in my opinion to remain as classed and to have record of survey 4-20

Survey Fee (per Section 20) £ : :
Special Damage or Repair Fee (if any) (per Sch. 20) £ : :
Travelling Expenses (if chargeable) £ : :
Second Surveyor's Fee (if any) £ : :

Fees applied for, 19
Received by me, 19

(SIGNED) JAMES D. PEAT
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Character Assigned

Claimant's Exhibit W.

1915

(Photostat.)

1916

1917

Claimant's Exhibit X.

(Photostat.)

Claimants 5 & Jan. 30, 1923
Litt.

Rpt. 9. No. 18508

Report of Survey for Repairs, &c., of Engines and Boilers.

(Received at London Office)

Date of writing Report 17th May 20 When handed in at Local Office 17th May 20 *Port of* NEW YORK

No. in Reg. Book. Sup. 36973 — *Survey held at* Brooklyn — *Date, First Survey* 23rd April *Last Survey* April 19 20 (Nos. of Visits)

on the Machinery of the Wood, Iron or Steel S.S. "WILLDOMINO" *Master*

Tonnage { Gross 5755 / Net 4173 — *Vessel built at* Vancouver — *By whom* J. Coughlan & Sons — *When* Year 1919 Month 4

Registered Horse Power — *Engines made at* Spokane — *By whom* Hallidie Co. Ltd. — *When* 1919

No. of Main Boilers 3 — *Boilers, when made (Main)* 1919 (Donkey)

No. of Donkey Boilers — *Owners* — *Port* Vancouver — *Voyage*

Steam Pressure— in Main Boilers 190. in Donkey Boilers — *If Surveyed Afloat or in Dry Dock* Robins (State name of Dock.)

Particulars of Classification (which must be transcribed previously on to Register Book & Supplements).

CHARACTER. (As in Special Survey, Book of last Survey and of Previous Survey.)		Hull and Boiler Completed on the ... day of ... 19.. If Comp.
*100a1 4-19		* L.M.C. 4-19

Last Report No. *Port*

Particulars of Examination and Repairs (if any) Damage

(Periodical Surveys, when held, must be reported in detail and certified in the terms of the Rules. State clearly the cause of Repairs, if any, and, in detail, the nature and extent of Renewals and subsequent Repairs. Repairs on account of Damage (the cause of which must be stated) should be separated from Repairs due to other causes; and besides being detailed in the body of the report, should be briefly summarized at the end of the report. State also the dates and initials of any letters respecting this case.

In damage cases where the Surveyor has not made a special damage report he is required to state whether he offered his services for this purpose, and why they were declined? Was a damage report made by anyone else? If so, by whom? ✓

Did the Surveyor personally go inside each Main Boiler separately and make a thorough examination at this time? ✓

Do. " Donkey " " " ✓

If this was not done, state for what reasons?

And what parts of the Boilers could not be thus thoroughly examined?

Also what special means, in the absence of internal examination, were adopted by the Surveyor to assure himself of the thorough efficiency of those parts of each Boiler?

Did the Surveyor examine the Safety Valves of the Main Boiler? To what pressure were they afterwards adjusted under steam?

Did the Surveyor examine the Safety Valves of Donkey Boiler? To what pressure were they afterwards adjusted under steam?

Did the Surveyor examine all the manholes, doors and their fastenings of the Main Boilers? , and of the Donkey Boiler?

Did the Surveyor examine the drain pipes of the Main Boilers? , and of the Donkey Boiler?

Did the Surveyor examine all the mountings of the Main Boilers? , and of the Donkey Boiler?

Has screw shaft now been drawn and examined? No Is it fitted with continuous liner? or two liners? or is it without liners?

Has shaft now been changed? If so, state reasons

Is the shaft now fitted now? Has it a continuous liner? or two liners? or is it without liners?

State the distance between lignum vitæ of stern bush and top of after bearing of screw shaft?

If the Survey is not complete state what arrangements have been made for its completion and what remains to be done? Complete

Vessel on dry dock examined propeller, outer end of stern tube and sea-cock fastenings.

General Observations, Opinion, and Recommendation :— The machinery of this vessel is eligible

(State clearly what alteration, if any, is suggested to be made in the existing classification of the vessel's machinery in the Register Book, consequent upon this survey, and also any alteration required to be made in the records of the vessel's machinery, boilers, working pressures, &c.: thus, for example, S.S. 0,11, S.S.T.S. 0,11, or ⊕ L.M.C. 0,11, 160 lb., F.D., &c.)

in my opinion to remain as classed without fresh record of survey

Survey Fee (per section 20) £ — Fees applied for 19

Special Damage or Repair Fee (if any) per Section 20.) £ — Received by me, 19

Travelling Expenses (if chargeable) £ —

(SIGNED) JAMES D. PEAT
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

CLAIMANTS EXHIBIT-X.

Defendant's Exhibit Y.

LLOYD'S REGISTER OF SHIPPING. 1921

PORT NEW YORK.

Cut—Lloyd's Register of Shipping.

April 24th, 1920.

THIS IS TO CERTIFY that I have Surveyed the Steel Screw Steamer "WILLDOMINO" 5755 tons gross register of Vancouver whilst in drydock at this port for damage stated to have been sustained on account of heavy weather, in January, 1920 and that I have transmitted to the Committee of Lloyd's Register of Shipping, London, a Report, stating that all repairs recommended 1922
by me have been completed to my satisfaction, and that I have Recommended that she be continued as now classed with fresh record of survey 4-20 being fit to carry dry and perishable cargoes.

J. FRENCH,
Chief Surveyor to Lloyd's Register,
for J. D. Peat.

This Certificate is issued upon the terms of the Rules and Regulations of the Society, which provide that:—

"While the Committee use their best endeavors 1923
to ensure that the functions of the Society are properly executed, it is to be understood that neither the Committee nor the Society are under any circumstances whatever to be held responsible for any inaccuracy in any report or certificate issued by the Society or its Surveyors, or in any entry in the Register Book or other publication of the Society, or for any error of judgment, default, or negligence of the Surveyors, or other Officers or Agents of the Society."

Deposition of H. L. Ebsen.

1924

UNITED STATES DISTRICT COURT,

DISTRICT OF NEW JERSEY.

CITRO CHEMICAL COMPANY OF AMERICA,
Libelant,

—against—

Steamship *Willdomino.*

CHARLES P. PFIZER & COMPANY,
Libelant,

1925 —against—

Steamship *Willdomino.*

And Cross Libel.

Deposition taken on behalf of the claimant, at the office of Messrs. Hunt, Hill & Betts, No. 120 Broadway, New York City, January 31, 1923.

APPEARANCES:

Messrs. HUNT, HILL & BETTS (Mr. SPRAGUE),
1926 for the Claimant;

Messrs. MCDERMOTT, ENRIGHT & CARPENTER (Mr. CARPENTER), for the Libelants;

Messrs. BIGHAM, ENGLAR & JONES (Mr. SINGLE), for the Libelants.

It is stipulated that the testimony may be taken by a stenographer, signing, filing and certification being waived, stenographer's fees to be taxable.

HENRY L. EBSEN, being duly sworn and examined as a witness for the claimant, testified as follows: 1927

By Mr. Sprague:

Q. Mr. Ebsen, what is your occupation? A. Consulting engineer.

Q. By whom are you specially employed at the present time? A. Both the W. & A. Fletcher Company of Hoboken and the Vulcan Iron Works of Jersey City.

Q. Were you employed by the Vulcan Iron Works in January, 1920? A. I was acting as their consulting engineer at the time.

Q. In connection with what special work? A. 1928
Turbine work, Parson's turbines.

Q. What experience have you had with Parson's turbines? A. I have been conversant with those turbines since 1890 and also acted as engineer of the W. & A. Fletcher Company when they built the very first Parson's marine propulsion turbines that were used in the United States.

Q. On what ships were those? A. The Governor Cobb and the Yale and the Harvard.

Q. In your capacity as consulting engineer for the Vulcan Iron Works in January, 1920, did you inspect the turbine sets on the *Willdomino*? A. I 1929
did.

Q. Did you make any changes to these turbines? A. I changed—I found the high pressure turbine was damaged and I repaired the damage to her blading, I repaired that damage and I also made a change in her thrust dummy and also changed her lubricating system, the lubricating system on that high pressure turbine.

Q. Will you state what the changes in the lubricating system were? A. The original lubricating system on that trip was intended for very

1930 light oil and the passageways leading to the thrust were such that whereas they would work properly with light oil, they were not of sufficient capacity to work with heavy oil and as the vessels were all going to the heavy oil, owing to the —to its better action on the reduction gears, these thrusts had a tendency with the heavy oil to heat; in the case of the *Willdomino,* the temperature. there ran—the temperature of the oil ran as high as two hundred degrees and I changed that so that there was a larger oil passage to its thrust and also made a supplementary oil feed, so as to hold the oil temperature down with
1931 the using of the heavy oil.

Q. In your opinion did that remedy any defects in the lubrication which had formerly existed? A. It certainly did.

Q. What, if any, changes did you make in this so-called dummy that you mentioned? A. The dummy was a mechanism installed in the forward end of that turbine to more balance the end thrust, all Parson's turbines have—when the—have a tendency to thrust endwise due to the pressure of steam against the blades. This turbine was one of the so-called unbalanced type and the
1932 shoes on that thrust, if lubrication was not good, were apt to melt out the Babbitt metal and allow the rotor to move endwise and strip the blades, which happened in this case. The balancing dummy balanced the end thrust to quite an extent, in fact were making the turbine more foolproof, but at the same time slightly more extravagant in steam. That dummy system, by the way, was—has subsequently been adopted by the Emergency Fleet and has been fitted in all of the vessels with the—with that type of Parson's turbine.

Q. Do many of the vessels of the Emergency Fleet have this type of Parson's turbine? A. I should say approximately one hundred vessels. 1933

Q. And do they have the same type of lubrication? A. Same type of lubrication.

Q. Did any one supervise the work as it was being done at the Vulcan Iron Works on these turbines? A. Both myself, the representative of the Parson's Company——

Q. Mr. Anderson? A. Mr. Anderson, and also Lloyd's inspector.

Q. Did you make any tests on the block after this work was done? A. I put that turbine on the test block, ran it at both its normal speed and twenty-five per cent over-speed, which we call the run-away test. 1934

Q. What was the result of the test? A. And the tests were satisfactory and the turbine was accepted by all parties and we then re-installed it on the ship.

Q. Did you have any trial trips after it was re-installed? A. Yes.

Q. Were you on the trial trip? A. I was.

Q. What was the result from that? A. The turbines ran very satisfactory, the temperature of the oil on that thrust ran between 125 to 130 degrees, which is the normal temperature that the oil should discharge from the thrust bearing. 1935

Q. Were all your recommendations carried out on this repair? A. Yes, absolutely.

Q. In your opinion, as a turbine expert of some experience, was this turbine system in good running condition when she left? A. Those turbines were in first-class running condition when they left our hands, by the way, you are talking about the recommendation, I also fitted a larger oil strainer on that system, there was a congestion

1936 —to my mind, a congestion in the oil feed to the system that had been there originally, the strainer was very small and I suggested to Mr. Williams to adopt the type that was being used by the Emergency Fleet, very large strainers for the oil, which he accepted, and we installed that and increased the size of oil piping to it, so that the turbines would get a plentiful supply.

Q. Was this considerable of a job that you did on these turbines? A. Yes, yes, of course the main work was on the high pressure element, the low pressure—the rotor was merely—the casing
1937 was taken apart and the rotor was lifted and examined and found in good condition, there were a few little minor repairs to be made to it, it was placed back again, it wasn't found necessary at all to take it to the shop.

Q. Do you know approximately how much was spent on those turbines at that time?

Mr. Carpenter: Objected to as immaterial.

Q. If you don't know, why just say—— A. I do know.

1938 Q. You do know? A. I have the bill here.

Q. How much was it, if you know? A. (Referring to paper): $21,396.68.

Q. Who else were on that trip test except yourself, besides yourself? A. Mr. Anderson, the representative of the Parson's Marine Steam Turbine Company, and Mr. Taylor, the turbine expert, the chief of the turbine department of the Emergency Fleet.

Q. Was Lloyd's surveyor on board? A. Lloyd's surveyor also.

Q. Do you recall whether Mr. Dickson was on?

A. I am of the opinion—I am not quite sure about Mr. Dickson but I have an idea he was there also. 1939

Cross examination by Mr. Carpenter:

Q. Do you know the name of the engineer of the *Willdomino* at the time you started your repairs? A. Let me see, I don't trust my memory, I have a little note here and I can get his name from that (referring to paper). I merely have a little memoranda under date of January 11, 1920, addressed to the Vulcan Iron Works, certifying that all the work had been carried out on this steamer and had been finished to my entire satisfaction, signed R. G. Donaldson, chief engineer. 1940

Q. Had you met Mr. Donaldson before that? A. I met Mr. Donaldson when the ship first came in and he came into the shop frequently.

Q. Was he the man who was chief engineer at that time? A. To my knowledge, yes.

Q. Can you give us the date when she first came to the Vulcan Iron Works for repairs? A. Can't tell you the exact day.

Q. Approximately? A. Why—she was supposed to be at our works, at the Vulcan Iron Works, on the 12th of December, but she was down in one of the down-eastern ports and there was a hold-up, so I can't—it must have been somewhere around—shortly before Christmas, around the 20th, she arrived. 1941

Q. It was somewhere in 1919? A. In 1919, yes.

Q. And you said the babbitt metal was burned out then ? A. The shoes in her high pressure thrust had all burned out the babbitt metal.

Q. That was due to either one of two things,

1942 was it not, either improper lubrication or improper care of the engine? A. Or it may have been bad oil, the boys in those days were having lots of trouble with oil with water in it or grit.

Q. The trouble, then, that you found could have been caused by bad oil? A. Yes.

Q. Could have been caused by bad lubrication through the oil system? A. Yes.

Q. Could have been caused by carelessness of the engineer? A. Surely.

Q. You turned this vessel over to the owners with these repairs completed on about January
1943 11? A. January 11.

Q. When she was running on the trial trip, did this man Donaldson have charge of the engines? A. I am under that opinion that he still was on that vessel, I wouldn't state positively, though, but I am under the opinion that he was still there.

Q. From your examination of that engine when it came in, you weren't able definitely to say precisely what caused the burning out of the babbitt metal, were you? A. No, it had—their report stated that they were running dummy——

Q. I don't care what their report said, I want
1944 to know what your knowledge is, did you make the repairs to the same vessel after the month of July, 1920? A. I don't remember whether it was in July, but some time after that she came to Tietjen & Lang's in Hoboken for repairs.

Q. That was the month of October, 1920, wasn't it? A. And—I am more inclined—I think it was along this, more likely.

Q. October, November? A. She came to have a new reduction gear put in and Tietjen & Lang's sent the two turbines to Vulcan's to be reconditioned.

Q. Were you with Vulcan's at that time? A. Yes. 1945

Q. Did you make a thorough examination of the engines at that time? A. I did.

Q. What did you find? A. I haven't—I didn't hunt up that report of mine as to the details at that time.

Q. Was the babbitt metal burned out again? A. No, no, there was no difficulty with the thrust, to my memory, it was more a question at that time that her boilers had primed and carried a lot of dirt over into those turbines and the gear had worn the blades down, it was a case of stretching the blades and straightening blades. 1946

Q. Wasn't the high pressure engine entirely out of commission? A. Not to my knowledge.

Q. Don't you know that she had crossed the Atlantic without the use of the high pressure turbine at all? A. No, I knew nothing about her——

Q. Did you find anything from your inspection of the turbines to lead you to think it was not proper to use them on a trip across the Atlantic? A. No, I can't say that, I haven't—as I said, I have not—I haven't hunted up my records of repairs on that second job, I understand that wasn't the point in question at all, the work that we did. 1947

Q. I am questioning—— A. I would have to look over my memoranda for that.

Q. Would your memoranda give that? A. I would see if I have it.

Q. We would like to have you do so. A. To see what records I have of the repairs made for Tietjen & Lang's.

Q. How long will you be gone? A. I will be

1948 back Saturday, that is, I hope to, I am not going to let them keep me a minute longer.

Q. Your recollection is that when the engines came to you from Tietjen & Lang it was simply a question of dirt on them? A. As near as I can remember they showed that the—that the stripping that occurred there had been due to boiler priming.

Q. What do you mean by boiler priming? A. Boiler is getting dirty water in them and foaming and the salt from that water getting over into the turbines, we had a lot of trouble——

1949 Q. It was due to salt water getting into the turbines? A. Salt water would cause them to prime, to foam.

Q. That wouldn't cause them to get frozen so they couldn't be turned over, would it? A. If the blades of the solid matter in there should tie itself up and ball itself up in such a way that the blades go into a bunch, then they will freeze.

Q. You didn't find anything like that in your examination, did you? A. Well, of course, when we examine, we simply lift the covers off and lift the rotor off, I didn't test the turbine, we didn't test the turbine, they were handed to us in the

1950 shop, taken adrift from Tietjen & Lang, so I had no opportunity to examine them that way, I didn't examine them aboard the ship.

Q. Could you tell from your examination whether the babbitt metal had been burned out again? A. Well, I am pretty sure they had no thrust trouble on that second—on that second repair.

Q. What I want to know is, could you, from your examination made in October or November, 1920, have told whether the babbitt metal had been

burned out on the thrust, or didn't you see enough of the engine—— A. There was no babbitt metal, to the best of my knowledge and belief, burned out on that second repair, you know we furnish—always furnish spare shoes with these sets and when they did have difficulty at sea, it's only a matter of a couple of minutes to shut down and to drop new shoes in place. 1951

Q. How many did you furnish when that vessel left in January? A. We usually furnish one—I am not quite sure whether we furnished one or two sets, but the general rule is, according to Lloyds' requirements, is to have one set of spare shoes. 1952

Q. And you furnished at least one and you think two?

Mr. Sprague: I object to that, he didn't say that.

Q. The type of shoe we furnish was the ordinary Michell shoe, or the shoe in which, in case the babbitt does burn out or rubs, that the rotor cannot move aft, it's what they call the safety type of shoe.

Q. Did you make any repairs to this vessel in October or November, on any part of the engines, which would permit them to back up? A. Beg pardon, permit them to do which? 1953

Q. To back up?

Mr. Sprague: I object to the line of cross examination—the repairs made in October—on the ground that it is not proper cross examination.

Q. Did you make any repairs to the turbine

1954 that works the reverse, speaking now of October or November?

Mr. Sprague: Same objection.

A. Am I to answer that?

Mr. Sprague: Go ahead.

A. I am not quite sure whether we straightened that—whether we overhauled those blades, I don't remember that we re-bladed them, renewed them.

Q. Did you re-blade the other turbine? A. Well, the blades—only such rows that had been damaged or stripped.

1955 Q. You found some had been damaged and some stripped? A. Stripped, yes.

Q. Did you make any repairs to the reverse in January or December, 1919 or 1920? A. On the low pressure turbine there was nothing done, on the high pressure turbine when that rotor went aft, some backing blades were damaged, which we repaired.

Q. What was the damage attributable to, if you can tell? A. The one in January, 1920?

Q. Yes. A. That was due to the rotor moving aft, that the shoes wiped the babbitt off and let the rotor move a quarter of an inch aft, so that

1956 the blades worked their nozzles.

Q. That was the fault of construction rather than operation, wasn't it? A. No, that was due to the burning out of the babbitt that allowed that rotor to move aft.

Q. Did you examine the copper expansion pieces when you examined the repairs in October or November, 1920? A. No.

Q. Were they all right? A. I didn't examine them then.

Q. Was any complaint made about them to you?

A. Copper expansion pieces were put in—one of them, at least, was put in new by the lcan Iron Works in January. 1957

Q. How long should that have lasted with the proper care? A. I don't see that they ought to have had any trouble with that at all, they last indefinitely, last as long as the machine does.

Q. What would cause that to be damaged in the ordinary course of operation? A. I would have to know what the nature of the damage was.

Q. Crack? A. Well, and—the copper expansion glands in power plants, as well as on board ships, occasionally through a good deal of working or pulsation, where the pulsations are normal, the copper will crystallize and perish and get cracks in it. 1958

Q. How long, in the ordinary operation of the engines, should it take before that trouble would develop? A. All depends entirely on the stability of the engines on their foundation.

Q. You knew how stable the engines were on their foundations in January, 1920? A. Yes.

Q. Were they stable? A. They appeared to be so but when the boat came in that fall they weren't, they rebuilt that foundation subsequently at Tietjen & Lang's.

Q. Did you see the foundation before it was rebuilt? A. Yes, I did. 1959

Q. What was the matter with it? A. Why, the foundation—they went to work and the foundation gave evidences of having worked loose the riveting and Mr. Coleman had spoken to me about it and I told him the practice, as a number of vessels had been suffering from the same trouble, I told them the practice that they had adapted to remedy that, by the placing of large plate gussets or brackets to this box foundation to make it more

1960 stable and the—and I—I don't know whether he followed that out or not because the vessel wasn't at our yard that fall.

Q. If one of those copper expansion pieces should crack during the operation of the vessel at sea, what would be the proper thing to do, proper thing for the engineer to do? A. Well, they could have—that expansion piece could have been soldered at sea, if it had been the expansion band between the high and low pressure turbine, where the pressure is practically atmosphere, that crack would not be a serious matter, as far as the operation of the turbines was concerned, un-

1961 less of course it broke off completely.

Q. But just a crack you wouldn't think it would do any harm? A. You could handle it temporarily in order to get to port.

Q. Are you discussing the band that controls the reverse turbine? A. Beg pardon?

Q. Are you discussing the band that controls the turbine that sends the vessel astern? A. No, no, I was discussing the copper expansion gland on the ahead, on the go-ahead side.

Q. Would it make any difference which—— A. Well, the one on the astern was a good deal

1962 smaller gland, it was up overhead.

Q. If that were cracked, what would be the effect, stop the engine from going into reverse at all? A. Not at all, no, it leaked, there were means to go to work and to disconnect in such a way that you could handle either one or the other separately by itself, you had to go ahead on both turbines, both high and the low.

Q. I will ask you another question, what would make the forward valve spindle on the forward oil pump work in the operation of an engine at sea, that particular engine at sea? A. That's a sep-

arate—that's a separate auxiliary entirely, off in 1963
the side of the engineroom, I had nothing to do with her pumps whatsoever, entirely outside of my jurisdiction.

Mr. Sprague: Objected to as purely speculative.

Q. Did you inspect the forward valve spindle on the forward oil pump? A. No, sir.

Q. In December, 1919, or January, 1920? A. No, sir, had nothing to do with those as far as inspection is—I looked at them.

Q. Saw nothing the matter with them? A. 1964
There was no complaint and it wasn't brought to my attention in any way or form as being defective. I might say that the copper expansion gland on the astern, if that had cracked, Mr. —— could easily put a strap on that, could have easily strapped that.

Q. So it would have stopped the leak then? A. Yes, stopped that leak, unless it was a clean break, entirely broken off.

Q. Then you would solder it? A. Then it would have to be re-soldered, on all the jobs I do all my expansion glands were soldered into brass flanges. 1965

Re-direct examination by Mr. Sprague:

Q. Would you say that it was a proper practice, Mr. Ebsen, in the case of a crack of that kind in the expansion piece between the high pressure go-astern and the low pressure go-astern, to cover that with tape and then put on red lead on top of it? A. Yes.

Q. Ordinary way of doing things, isn't it? A. Yes, it doesn't carry very high pressure.

1966 Q. It's a vacuum really, isn't it? A. No, the turbines—the high and the low work compound—you put the boiler steam into the high pressure reverse element and that exhausts over into the low pressure reverse element, although there are arrangements there you could run either one separately by itself, but for to get the full power of backing, why of course you would run the two of them together and that was merely the intermediate pipe between them, I don't think the pressure in that pipe would ever run higher than ten or fifteen pounds.

1967 Q. That is when she is backing? A. When she is backing only.

Q. When she is going ahead, it would be a vacuum? A. It would be a vacuum on that pipe.

Q. So there wouldn't be any pressure unless she was going astern? A. No.

Q. Now, Mr. Ebsen, after the vessel had left port and was out on the sea, would you consider it proper practice for the chief engineer to blank off at the expansion piece that was broken? A. If——

Q. When it was the expansion piece from the low pressure astern to the high pressure astern?

1968 A. If the break was of such a nature it rendered the operation of that astern difficult, why naturally you blank it off and use only the one astern, use the low pressure astern.

Q. That would be quite proper, wouldn't it? A. Yes, in fact, there are blanks and spectacle pieces furnished for that way as well, as one piece has a hole in it to sandwich in the flange, with a handle to it, now if at any time you want to blank off, you want to loosen the bolts, pull that spectacle blank out and shove that solid blank

in and bolt it together in, and all these turbine sets were so fitted. 1969

Q. And it was quite an ordinary and proper thing for the chief engineer to have done, in your opinion? A. It is, yes.

Q. Did these foundations give any indication to you, in January, 1920, that they worked in any way, in any way loose? A. I didn't observe any working at that time.

Q. The turbines seemed to be solidly fixed to their foundations, didn't they? A. Yes.

Q. What were these spare shoes that you said it was your custom to furnish? A. Those are the blocks with the shoes in the thrust of the high pressure dummy. 1970

Q. That is what you call it, the thrust pads? A. The thrust pads, yes.

Q. The extra thrust pads? A. Yes, they are triangular, about five and a half or six inches wide, and there are six of them to a circle, and they are pivoted to adjust themselves to take the pressure very uniformly on the pad, they have a hard, steel button on the back on which they rotate.

Q. And the purpose of the spare thrust pads is so that if one set of thrust pads is burned out, you could put these spare pads in? A. Not only burned out, if they wear, on the forward end of that turbine, as well as all of turbines, we have what they call a micrometer, and with that micrometer attachment you can, while the engine is running, you pull the lever on that and it has a scale on it, and a plug that moves into the casing, and that plug touches the end of the shaft and the pointer on the outside records on the scale whether the shaft is in its proper position, now if the shoes or the pads, as we call them, wear and 1971

1972 that shaft moves either aft or forward, the micrometer detects that immediately and then the duty of the chief engineer at least once every twelve hours to test the stability or test—to test, with his micrometer, to see that the pads are not wearing or that they have—are in proper shape, if they show four or five-thousandths or ten-thousandths of an inch wear, that is not excessive, but if it goes over that, it is time to shut down for a minute and take out the pads and drop the spare ones in.

1973 Q. As I understood you on cross examination, it is your recollection that you furnished one set of pads in this case? A. To my recollection, yes, that is the Lloyds' requirements, to have a spare set of pads.

Q. The fact that there is foaming in the boiler does not necessarily indicate that salt water has been used, does it? A. Generally, at sea.

Q. But there are other causes of that, are there not? A. Yes, of course the boys often use boiler compound, as they call it, to keep their boilers clean and an overdose of boiler compound would cause boilers to foam also, or prime.

1974 Q. You wouldn't want to say definitely that the babbitt metal hadn't been burned out on this second trip, where the turbines were finally turned over to the Vulcan Iron Works apart from the ship, in October, 1920, until you looked over your notes, would you? A. Exactly, I have no—my memory—I don't remember exactly whether they were, whether they were burned or not.

Q. And if the chief engineer testified that they did wear out—the babbitt metal, and the high pressure turbine came astern, as he has so testified, would that—— A. For the second time—she came astern for the second time?

Q. Yes, would that change your recollection at all? A. I am pretty sure we put in what they call the safety pads, that would not permit the rotor to go astern sufficient to do any damage, of course, continuous running even on a safety pad would grind the safety pads away sufficiently to let the rotor go aft to do the damage. 1975

Q. After you return from your trip, would you look at your notes and advise Mr. Single and myself as to what they show on that point.

Mr. Sprague: I think we ought to know, don't you, Mr. Single?

Mr. Single: Yes. 1976

A. Originally the makers put out all solid shoes with babbitt facing and then they put out bronze shoes with babbitt facing and finally—although I think the all-bronze shoes came into vogue after the United States Navy advocated them strongly, I think they were subsequently used to 1920, since that time the solid bronze, now whether that boat received a set of solid bronze shoes on the second overhauling or not, I am not quite sure.

Q. But on the first overhauling, what is your recollection of the kind of shoes? A. My recollection is we put in the safety bronze shoes with babbitt lining and with a raised strip around the edge so in case the babbitt melted off, that there would still be a bearing on this strip of brass around the shoe which would prevent the rotor going aft, although I have seen some boats that—in the Emergency Fleet service, with the safety shoes wear the babbitt all right out, and the engines worked and they couldn't find out the trouble and they waited and waited and waited 1977

1978 until the entire safety strips were ground off of the safety shoes, and then they would have to strap the blades, I have seen those things happen, but an engine like that would have to cut up capers for at least an hour or an hour and a quarter before you would get as bad as all that, because the safety shoe will—you can immediately see by the rising temperature of the oil when the friction increases there, that immediately will tell you that there is something wrong, and of course you resort to that micrometer, that reading is instantaneous, just by the pushing of the lever.

1979 Q. You did everything you could to make these machines—— A. Fool-proof.

Q. (Continuing) Fool proof? A. Absolutely.

Q. At the time she left your yard? A. Absolutely, we adopted the standards all the way throughout of the——

Q. Go ahead, Mr.—— A. (Continuing) We adopted the Emergency Fleet standards on that job all the way throughout.

By Mr. Carpenter:

Q. Have you found out whether you put in

1980 those safety pads? A. Beg pardon?

Q. Have you found out—— A. I have here in the bill the one item, that eighteen combustion thrust shoes, 142½ pounds.

By Mr. Sprague:

Q. Does that indicate whether they are safeties or not? A. To my mind, this was the first boat that we adopted the safety thrust shoes, the bronze safeties, they came in long before the solid bronze came in.

Q. Are there any records from which you could find out for certain whether you had those safeties on or not? A. Yes, they would have a drawing of them, the Vulcan Iron Works would, in their office, have a drawing of those shoes. 1981

Q. If they were furnished? A. Yes.

Q. Could Mr. Anderson obtain that for us tomorrow? A. Absolutely, and that drawing, I have seen that, and I am pretty sure it is on file there, high pressure bronze safety thrust shoe, at that rate there was a set and a half furnished, eighteen of them.

By Mr. Carpenter:

Q. Why would those shoes burn out the babbitt metal after they were on board, while the vessel was on a trip across the Atlantic, what explanation can you give for it burning out the second time? 1982

Mr. Sprague: I object to it as being purely speculative, also not proper cross examination.

A. All I can say is that in all turbines, not only Parson's, General Electric, Westinghouse, on all the vessels crossing the oceans, they have that happen periodically, every one of them, every one of the makes. 1983

Q. When they have safety shoes aboard too? A. They—if—when the babbitt wipes out of those shoes and causes that difficulty and the machine is not shut down, naturally she will grind herself to pieces.

Q. How long would that take, after it starts?

Mr. Sprague: Same objection.

1984 Q. After the lubrication gets poor, how long would it take—— A. That's speculative, it would be anywhere between half an hour to an hour and a half before it is out, all depending on the amount of heat there.

Q. It wouldn't be less than half an hour? A. I am only able to give you this from hearsay, in these cases where the babbitt——

Mr. Sprague: Objected to as calling for hearsay.

1985 A. The engineers tell me they have run screeching, shaken them out of their beds at nights, for fifteen minutes before they had the blades strapped.

Mr. Sprague: I move to strike the answer out as hearsay.

A. (Continuing) This is the first time the balancing dummy—that this type of balancing dummy was adopted and was subsequently used in all of the—in all of the Parson's turbines in the Emergency Fleet and is to this day.

1986

Testimony.

UNITED STATES DISTRICT COURT. 1987

DISTRICT OF NEW JERSEY.

CHARLES P. PFIZER & COMPANY,
Libellant,
—against—
Steamship "WILLDOMINO,"
Respondent.

CITRO CHEMICAL COMPANY OF AMERICA,
Libellant, 1988
—against—
Steamship "WILLDOMINO,"
Respondent.

APPEARANCES:

MESSRS. BIGHAM, ENGLAR & JONES (MR. JAMES D. CARPENTER) for the Libellant.

MESSRS. HUNT, HILL AND BETTS (MR. SPRAGUE) for the Respondent.

1989

Trial continued before Hon. Charles F. Lynch, Judge, at the Post Office Building, Newark, New Jersey, on Monday, February 26, 1923, at 10:30 A. M.

The Court: Does your side rest?
Mr. Sprague: We rested, your Honor.

CHARLES G. BAUER, called in rebuttal and sworn, testified as follows:

Direct examination by Mr. Carpenter:

Q. Mr. Bauer, where do you live? A. 547 Lafayette Avenue, Brooklyn.

1990 Q. And with whom are you connected? A. Custom House brokers' concern, New York.

Q. And what is the name of your firm? A. Hensel, Bruckmann & Lorbacher.

Q. Now, did your firm receive from the Citro Chemical Company bill of lading and invoice prior to the *Willdomino* reaching New York? A. Yes, sir.

Q. That covered a consignment of citrate of lime, did it? A. Yes, sir.

Q. Now, when you received those bills of lading, what did you do? A. We waited until we
1991 heard of the arrival of the vessel and then we made entry at the Custom House.

Q. Made the entry at the Custom House; then what did you do? A. Make entry, we paid the duty and sent the permit on board to the Inspector.

Q. Now, when you paid the duty, did you have any knowledge as to whether or not that particular consignment of citrate of lime had been injured or damaged? A. No.

Mr. Sprague: I object to that, your Honor. I don't see what bearing it has on
1992 the case, what knowledge this Custom House broker had.

The Court: I will let it stand; it may have a bearing; I cannot tell just now.

Q. Do you remember how much duty you paid on that shipment? A. $2,228.70.

Q Now, after paying the duty, what did you do? A. I obtained a release from the Steamship Company and gave the instructions to our truckman to call for it and deliver it to the Citro Chemical Company at Maywood and for that

reason we had to ship it out there by trucks be- 1993
cause there was an embargo at the railroad.

Q. Whereabouts was the *Willdomino* at that time that you got your delivery receipt from the Steamship Company? A. Over in Jersey, Jersey City.

Q. Pier C, Jersey City? A. Well, yes, in that section, Piers A, B, C.

Q. Now, did you go over to the steamship yourself? A. No, sir.

Q. Did you yourself get the delivery receipt from the steamship company, delivery order? A. Well, when we paid the freight, we obtained a 1994
release from the steamship company.

Q. Did you, yourself, get that release? A. No, we sent a young man over there.

Q. Who was the truckman that you employed to make delivery of the citrate of lime? A. Schafer and Schafer.

Q. Now, up to the time that you delivered the papers to Schafer and Schafer did you have any knowledge that this cargo had been damaged or had even been wet?

Mr. Sprague: Same objection, your Honor. 1995

The Court: I will permit it.

(Respondent's counsel prays an exception, which is hereby allowed and sealed accordingly.)

(Sealed)

A. No.

Q. Do you remember the date that you got the papers and delivered them to Schafer and Schafer? A. August the 16th.

1996 Q. What year, 1920? A. Yes, 1920.

Q. Now, did you have anything to do with paying the freight? A. Yes, sir.

Q. What did you do about that? A. We obtained a freight bill from the steamship company and then we paid the freight and obtained a release from the steamship company.

Q. How much was the freight that you paid to the steamship company? A. $1,350.93.

Cross examination by Mr. Sprague:

Q. Mr. Bauer, you later made application on behalf of your client for a remission of this duty,
1997 didn't you? A. We did.

Q. And you obtained such remission, did you not? A. Well, we first filed an application for relief, that is an abandonment, and it was rejected by the Collector, so we took the matter up with the Collector's deputy and they informed us on account we had a wrong date of arrival on our entry papers, which doesn't concern this case, I don't believe, we were allowed to re-declare for entry and file a new application for abandonment which was recognized by the Government and the refund duty was granted to them, but it had to
1998 be tested in the courts, New York and Washington.

Q. So the money was actually paid back, was it not? A. Yes, sir.

Q. To the Citro Chemical Company? A. Yes, sir.

Q. I understood you to say that you yourself did not attend to this payment of freight to the owners of the *Willdomino,* is that correct? A. Well, I personally did not; I just ordered the boy to go down there, obtain a freight release and then give instructions to pay it; the boy paid it.

Q. So that was done by the boy? A. By the 1999
boy.

Q. Not by you. You did not go on the *Willdomino* at all yourself? A. No, I did not go to the *Willdomino*.

Q. You had no further interest in this case than that of the usual Custom House broker, did you? A. That's all.

Q. When did you make the application for the return of the duty, the first application? A. Well, we received our papers in advance, you know, of the arrival of the vessel, and we were of the opinion that the vessel had arrived and presented our papers to the Custom House and 2000
they were passed.

Q. Well, that was at the time that you paid your duty? A. No, we paid the duty later.

Q. That was the time you entered the record then? A. That was the time we entered the record.

Q. Now, my question is when did you make your application for the refund of the duty? A. Well, the application that was recognized for the refund of the duty was made on about the 19th of that month.

Q. 19th of August? A. Well, I couldn't say 2061
positively, but it was within the legal time allowed by law, that is ten days from the date of entry of the vessel.

Q. That is, it was within the month of August, 1920? A. Yes.

Q. And prior to that you had made another application, I believe you stated, which was not allowed? A. Yes, which was not recognized by the Government—disregarded.

Q. When was that made? A. Well, that I couldn't say; of course it didn't have much

2002 bearing, you know, on the refund; was just cast out.

Q. Was it as much as five days before the second one? A. Yes, it was made—I couldn't say.

Q. Well, how long do you think it was made before the second application was made? A. Well, it possibly was made the time that the truckman informed me of the damage.

Q. When did the truckman inform you of the damage? A. Well, that was the date he applied for the merchandise, that was about August the 17th.

2003 Q. And your recollection now is that you made application for the refund of the duty on that date? A. The first application was filed.

Q. And upon what grounds did you make application for the refund of the duty? A. Abandoning the merchandise.

Q. That is that the merchandise was worthless? A. If the merchandise is damaged 10% of the invoice value of quantity, you are allowed to abandon it to the Government, or that portion can be abandoned.

Q. And you made it upon that basis, did you? A. Yes, sir.

2004 Q. You were instructed by your clients to so do? A. Yes.

Q. Did you abandon the whole lot? A. We abandoned that portion that represents 10% or more of the invoice value of quantity; that would be determined by the Government.

Q. Have you with you your application for the refund of the duty? A. No, that is an official record in the Custom House.

Q. Have you any copy of it? A. No.

Q. In your files? A. Well, yes, we have a copy

of a general form like that which we just filled in the various details. 2005

Q. Well, have you a true copy of the application that you made in the present instance? A. No, not with me, no, sir.

Q. Have you it at your office? A. Well, I could get a copy of it.

Q. At your office? A. Well, a copy of the original at the Custom House.

Q. But you haven't a copy at your own office? A. No, sir.

Q. Is that correct? From what officer did you obtain a copy at the Custom House? A. Well, just by referring to the files. 2006

Q. Well, can you state what the files are; can you obtain such a copy? A. From the files, yes.

Q. And submit that tomorrow, say, to the Court? A. Yes. That is, if I get back to New York in time.

Mr. Carpenter: We will get it to you before tomorrow.

Q. Did you abandon this cargo on the ground that it was all valueless? A. No, I have no knowledge of that; we took a general form—of course, the law states that you can abandon 10% where it has a damage of 10% or more of the invoice value or invoice quantity, you can abandon that portion or the entire merchandise. 2007

Q. Well, did you abandon the entire merchandise in this case? A. Well, no, our form reads that we abandon that portion that represents 10% or more of the invoice value or quantity, but in this case the entire shipment was abandoned.

2008 Q. You did abandon the entire shipment here? A. Yes, sir.

Q. And you claimed and obtained the full duty back from the Government? A. The full duty was returned, you know, but it had to be tested, as I say, at Washington through attorneys, which they had a fee in connection with that.

Q. But it was eventually returned to your client? A. Yes, sir.

Q. That's all.

Re-direct examination by Mr. Carpenter:

2009 Q. That is, returned, less the attorney's fee? A. Oh, yes.

Q. When you first abandoned, all you did was to serve notice that there was at least ten per cent. of the cargo damaged? A. Yes, sir. Damage equal to at least ten per cent. of the invoice price.

Mr. Sprague: I object to that, your honor, on the ground that it calls for the contents of a written document which you have asked to have produced.

Mr. Carpenter: All right, we will get
2010 the original.

Q. That's all.

AUGUST W. SCHAFER, called and sworn in rebuttal, for the libellant, testified as follows:

Direct examination by Mr. Carpenter:

Q. Mr. Schafer, where do you live? A. 1717 Linden Street, Brooklyn.

Q. And what is your business? A. Truckman. 2011

Q. And were you employed by Mr. Bauer, the last witness, in August, 1920, to go to the S.S. *Willdomino* and truck a lot of citrate of lime to the Citro Chemical Company in Maywood? A. Yes, sir.

Q. Do you know what day you went to the steamship? A. August 17th.

Q. Where was the steamship then? A. Pier C, Jersey City.

Q. Now, did you go to the steamship? A. Yes, sir.

Q. And when you got over there what documents did you have? A. Why, I had a freight release and a delivery order. 2012

Q. And did you tender those to the persons in charge of the ship? A. Yes, sir, to the delivery clerk.

Q. Did they give you the merchandise? A. No, sir.

Q. Why not? A. They told me the steamer had been damaged and was under water and the steamer would have to go to the drydock before the goods could come out of the ship.

Q. Well, what did you do after getting that information? A. Well, I telephoned Mr. Bauer and gave the information to him, told him that I couldn't get it and I was coming back to New York. 2013

Q. Did you have any knowledge before that day when you went there on August 17th that the particular cargo was damaged?

Mr. Sprague: Same objection as before.

The Court: Permitted.

2014 (Respondent's counsel prays an exception which is hereby allowed and sealed accordingly.)

(Sealed.)

A. No, sir.

Cross examination by Mr. Sprague:

Q. The delivery clerk told you that this cargo was under water, did he not? A. Yes, sir.

Q. That's all.

2015 CHARLES P. HAFFEY, called and sworn in rebuttal for the libellant, testified as follows:

Direct examination by Mr. Carpenter:

Q. Mr. Haffey, where do you live? A. 75 Second Street, Brooklyn.

Q. By whom are you employed? A. Charles Pfizer & Company.

Q. How long have you been in their employ? A. Over 16 years.

Q. And what is your present position with
2016 them? A. Traffic manager.

Q. How long have you had that position? A. About eight years.

Q. Now, your position you have charge of securing the delivery of cargoes that are consigned to you from various vessels that bring in the cargoes to New York Harbor? A. Yes, sir.

Q. Now, did you have charge of receiving the cargo of citrate of lime from the steamship *Willdomino* in August, 1920? A. Yes, sir.

Q. By the way, before that ship reached New York did you see anything in the papers about her? A. Not to my knowledge. 2017

Q. When was the first you had any information that she had been in an accident? A. Why, I telephoned the Williams Steamship Company when she was at Halifax, in fact I telephoned prior to her arrival in Halifax because she was then overdue and they told me she was going to Halifax and when she arrived at Halifax I asked them what is the delay; they just told me she is at Halifax and will be down in a short time.

Q. Did they tell you at that time that she had been damaged at all? A. No, sir. 2018

Q. Now, do you know when she got to New York? A. I telephoned on Saturday, August the 7th and they told me she arrived to-day, meaning that day, August the 7th.

Q. Why did you telephone them? A. Why, I wanted to find out what the delay was.

Q. I see; now when they told you that she had arrived that day, did they tell you she was damaged? A. No, sir.

Q. Well, when you learned that she was in port, what did you do? A. Well, that was Saturday; the Custom House was closed; I left instructions to make the entry on Monday, August the 9th. 2019

Q. And was the entry made that day? A. Yes, sir.

Q. And did you pay the duty? A. Yes, sir.

Q. On the consignment? A. Yes, sir.

Q. What did the duty amount to? A. $4,446.92.

Q. And after paying the duty, what did you do? A. Well, I was away when the duty was paid: I was on my vacation.

2020 Q. You left on your vacation after that Saturday, did you? A. Yes, sir.

Q. Now, when did you return from your vacation? A. On Monday, August the 23rd.

Q. Well, when you got in, did you find that the cargo had been unloaded or not? A. Well, the young man that was in charge when I was away, I asked him and then my superiors told me there was something the matter with the cargo of citrate of lime in the *Willdomino*, to get on the job and find out what it was.

Q. Did you get on the job then? A. Yes, sir, immediately.

2021 Q. And what did you do then? A. I telephoned the office and found out where she was located.

Q. You mean telephoned the Williams Steamship Company? A. Telephoned the Williams Steamship Company.

Q. To find out where the boat was? A. Yes, sir.

Q. And did you go aboard her? A. Yes, sir.

Q. Where was she? A. Up in, I believe, 133rd or 134th Street and North River, New York.

Q. And did you go aboard her? A. Yes, sir.

2022 Q. Did you look down in Number 1 hold? A. I looked down in the hold; I don't know what the number was; it was in the front of the vessel.

Q. And what did you see? A. Why, I saw citrate of lime casks floating in water.

Q. Floating in water or water around them? A. Well, water around them.

Q. Now, how high did the water come? A. Why, I could see the top tier was not entirely covered, that's all I could see; the rest was under water.

Q. Could you tell whether the water had covered the top tier at any time or not? A. Well, that I don't recall. 2023

Q. That was August 23rd, was it not? A. Yes, sir.

Q. Before that did you have any knowledge that your cargo had been damaged? A. No, sir.

Q. Before you left on your vacation did you do anything regarding the general average bond? A. No, sir.

Q. When did you do that? A. Why, that was after I came back, I think.

Q. Now, then, do you remember writing a letter to the steamship owners on September 2nd referring to Exhibit C-11; did you write that letter? A. Yes, sir; pardon me, I didn't put this notation here. 2024

Q. You didn't put any notation at the bottom? A. No, sir.

Q. But everything above your signature was written by you except the exhibit number? A. Yes, and except that address.

Q. This number 9-2 is not yours? A. No, sir.

Q. Were you notified that the goods would be out of the steamer in about a week or more?

2025

Mr. Sprague: I object to that question as grossly leading.

The Court: It is in the letter; and he has read the letter. No harm, I guess, in referring to that particular statement.

A. Whatever information is in the letter I received prior to writing that, over the telephone.

Q. From whom did you receive it? A. From the Williams Steamship Company's office.

2026 Q. You don't remember who? A. No; I always asked for the inward freight department.

Q. Now, then, what was the first date that this shipment was tendered to you by the steamship company—October 2nd or 4th? A. You have got the letter; I don't recall the date offhand, but it is in the letter.

Q. Was any delivery offered to you before you wrote that letter of September 2nd? A. No, sir.

Q. Did you go to the steamship at any time between August 23rd when you went there first and October 2nd or 4th when they offered delivery? A. Oh, yes, I made several trips over there.

2027 Q. And where did you see the steamship on those various occasions? A. The first time I went over there she was out in the stream, that is, I went to Tietjen and Lang's drydock; she was out on the outside there tied up to other vessels; so I came away; I went over there again the second time, she was tied up to the open pier or dock, not a drydock; I went aboard her.

Q. Do you know where the citrate of lime was then, the second time? A. When I went aboard it was somewheres on top of the deck, scattered all over, there was several casks on the deck and

2028 there was quite a number visible in the lower part of the hold.

Q. Do you know what time that was that you saw her there at the pier in Hoboken? A. I should judge, I should say about two or three weeks after August 23rd, as near as I can recall.

Q. Now, then, was it after this letter of September 2nd was written? A. Yes, sir.

Q. Now, then, after you saw the ship next to the pier in Hoboken, two or three weeks after August 23rd, when did you see the ship again?

A. Well, I saw it a few days after that, I went back again. 2029

Q. Where was it then? A. She was still at the same place.

Q. And after that where did you see her? A. I went over again and found that she was in drydock.

Q. And did you go on her? A. No, sir, not while on drydock.

Q. Did you go back after that? A. Next time I went back I couldn't see her at all; don't know where she had gone.

Q. Do you know about what time that was? A. I should judge the latter part of September. 2030

Q. And did you go back again after that again? A. No, sir.

Q. Now, then, when you went aboard the ship, which you say was several weeks after August 23rd, did you notice anything particular about the citrate of lime? A. Yes, I particularly noticed the smell.

Q. Just describe that smell. A. As near as I can I will say I never smelled anything like it before or since; it was simply disgusting, so much so that I lost my appetite for lunch twice, when I did smell it. 2031

Q. Should citrate of lime smell like that?

Mr. Sprague: Your honor, I object to how citrate of lime should smell; has nothing to do with the case.

(Objection sustained.)

Q. Well, does citrate of lime, when it is not damaged, smell like that? A. Absolutely not.

2032 Q. Now, can citrate of lime in that condition in which you noticed it several weeks after August 23rd—was it fit to have been carted over to your factory?

Objected to.

A. Not the ones I seen.

The Court: Well, of course you had better explain what you mean by fit.

Q. Would you have been permitted, in your
2033 judgment, to have taken it over to your factory?

Mr. Sprague: I object to that as calling for a conclusion.

Objection sustained.

Q. Whereabouts is your factory located? A. Over in Bartlett Street, Brooklyn.

Q. How does the citrate of lime that you import get to your factory in Brooklyn? A. It is always carted.

Q. Carted by truck? A. Yes, sir.

Q. And was this smell that you have noted, so
2034 bad that it would cause any trouble while it was being trucked through the streets of Brooklyn, in your judgment?

Mr. Sprague: I object to that.

The Court: I sustain the objection. Brooklyn may stand for things that other cities won't.

Q. On August 23rd when you saw the open hatch, saw the tiers in the hold, did you notice that odor? A. No, sir, I did not.

Q. Now, then, Mr. Haffey, for what purpose is citrate of lime used? A. Well, we manufacture citric acid from it and we sell—— 2035

Q. And you sell for what purpose? A. One of the principal uses is to make citrate of magnesia. We sell it to confectioners and soft drink manufacturers.

Q. It is a food product, is it? A. Yes, and is also used for medicinal purposes.

Q. And as such food product is it under the control of the Board of Health, do you know, the supervision of the Board of Health?

2036

Mr. Sprague: That I object to.

The Court: I will permit that.

(Respondent's counsel prays an exception, which is hereby allowed and sealed accordingly.)

(Sealed.)

A. No, I do not know.

Q. Now, Mr. Haffey, some mention has been made of these casks or barrels; were these the same kind that you customarily import citrate of lime in?

2037

Mr. Sprague: I object as grossly leading.

The Court: I will permit it, but we are getting down to the issues.

A. Yes, sir.

Q. Just describe it to the Court. A. Why, I asked on several occasions what kind of wood it was; I was informed it was chestnut; I would say it was about an inch thick.

2038 Q. The staves? A. Yes, sir. I would say approximately an inch thick.

Q. How long are the staves; how high are the barrels?

Mr. Sprague: I object on the ground of hearsay; he says he was informed of this wood.

Mr. Carpenter: I will prove it by other witnesses.

The Court: He can testify to the width and height from his own knowledge.

2039 Q. Give us the height and width of those barrels. A. I couldn't say offhand; I never measured them.

Q. About. A. Well, they stand higher than from the floor to here, in fact higher than that. I will give you a better idea; it takes about six men to lift them on a truck. They weigh from 15 to 1,700 apiece, gross.

Q. Empty or full? A. Filled; that's when they are dry and sound condition.

Q. Now, do you know how they are held together? A. They are held in with wooden hoops and iron bands.

2040 Q. Both? A. Yes, sir.

Q. And were these barrels that came in in the *Willdomino* of that same structure? A. Yes, sir.

Q. When you looked in the hold of that vessel o nAugust 23rd did you notice whether any of those casks were broken? A. I didn't see any broken.

Cross examination by Mr. Sprague:

Q. Well, of course you didn't see anything on August 23rd except the casks on the top tier, did you? A. And lots of water.

Q. But you didn't see any of the casks, the bottoms? A. No, sir. 2041

Q. Did you go down into the hold that day, August 23rd? A. No, sir, I did not.

Q. Was Mr. Liesgang with you at the time? A. I met him coming off the steamer and we went back on the steamer, him and Mr. Rodman.

Q. Did you go down in the hold with them? A. I don't recall, no, sir.

Q. Did you state to Mr. Liesegang at the time that you considered this citrate of lime worthless? A. I considered it was a total loss, I said.

Q. A total loss, you stated that, did you? A. Yes, sir. 2042

Q. That was on August 23rd? A. Yes, sir.

Q. Now, did you take samples on that day? A. No, sir.

Q. Did you yourself take any samples? A. No, sir.

Q. Who did take the samples if you know? A. I don't know.

Q. In your letter of September 2nd, Exhibit C-11, which your counsel has read, you refer to certain samples having been taken from about forty casks of this shipment. A. Yes, sir.

Q. You don't know who took those samples? 2043 A. No, sir.

Q. You state in the letter, "From these samples it appears that these goods will be a total loss." A. Yes, sir.

Q. How does it appear that these goods will be a total loss? A. Why, by the color of them and the smell of them.

Q. Well, you knew that on August 23rd, didn't you? A. Yes, but we had no samples at that date.

2044 Q. What was done with these samples? A. They were sent to our factory and analyzed.

Q. And you had an analysis from your factory, did you? A. Yes, sir.

Q. And that analysis showed that they were a total loss? A. It showed a certain percentage of citric acid.

Q. Have you got that analysis with you? A. No, sir.

Q. And does your factory have it? A. Yes, sir.

Q. Will you produce it? A. If I can locate the records, yes, sir.

2045 Q. So this letter of September second is simply a reiteration of your own belief of August 2nd? A. Yes, sir.

Q. That is it was a total loss? A. Yes, sir.

Q. You informed your underwriters to that effect, didn't you?

Mr. Carpenter: To that I object as immaterial, and irrelevant.

The Court: Permitted.

A. Yes, sir.

2046 Q. And you abandoned the cargo to them? A. Why, I don't recall whether it was them or the steamship company.

Q. They paid you the insurance, didn't they?

Mr. Carpenter: I object to that as immaterial.

The Court: I will permit it.

A. Yes.

The Court: How is that objectionable, Mr. Carpenter?

Mr. Carpenter: Why, I can conceive how a shipper would take the position that as between him and the Insurance Company it was a total loss, whereas it might not have been that as between the shipper and the ship. 2047

The Court: I will let it stand; if I find out it should be ignored I will ignore it.

A. (Continuing). Pardon me, may I be permitted to state why I said it was a total loss?

Mr. Carpenter: I will ask you that later. 2048

Q. Do you know anything about the price of citric acid at this time? A. The price of citric acid?

Q. In August, 1920. A. No, sir, I don't recall now what it was.

Q. Do you have anything to do with the price? A. No, sir.

Q. Do you know whether or not the price of citrate of lime had been steadily declining since this cargo was put on board the vessel? A. No, sir, I do not.

Q. You don't know anything about that? A. No, sir. 2049

Q. Now, you didn't sign these general average bonds, did you? A. I believe they are signed by an officer of the corporation, but they pass through my hands.

Q. You say they pass through your hands? A. Yes, sir.

Q. That is the signature, isn't it, of Mr. Anderson, your treasurer? A. Yes, sir; this one over here; yes, sir.

2050 Q. And that is dated the 9th of August, isn't it, 1920? A. Yes, sir.

Q. Now, how many times did you say that you saw the *Willdomino?* A. Why, I must have seen it all told about half a dozen times, to the best of my recollection.

Q. The first time you saw it, it was up at 135th Street? A. Yes, sir.

Q. That time you didn't go into the hold? A. No, sir; went on board only.

Q. Did you look down through the hatch? A. Yes, sir.

2051 Q. Did you go down into the 'tween decks? A. No, sir.

Q. So you looked down from the hatch on the upper deck? A. Yes, sir.

Q. And that was about twenty feet from the place where the citrate of lime was, wasn't it? A. I couldn't judge the distance; I could see the casks.

Q. Well, the citrate of lime was down in the lower hold, was it not? A. I don't know what hold it was in.

Q. Well, it wasn't up flush with the deck, was it? A. No, sir.

2052 Q. There was a considerable space called the 'tween decks, in between, that was empty, wasn't it? A. I don't know whether that was empty; there was considerable space there.

Q. But there was no citrate of lime there? A. Not as far as I could see.

Q. How far down would you say that citrate of lime was from where you stood? A. Whatever the usual distance would be from the upper to the lower in a steamer of that kind; I don't know.

Q. Don't you think it was at least twenty feet? A. It may have been fifteen.

Q. You could not observe the casks very well 2053
from that distance, could you? A. Oh, yes.

Q. Was there any artificial light in that hold? A. No, sir; it was broad daylight, three o'clock—four o'clock in the afternoon, summer's afternoon.

Q. All the casks that you could see were those in the square of the hatch, weren't they? You couldn't see any of the casks that were in under the decking, could you? A. No, sir.

Q. Just those which were directly within the square of the hatch? A. Absolutely.

Q. The square of the hatch was about eighteen 2054
feet square? A. I don't know the dimensions of it.

Q. Somewhere around that? A. I don't know.

Q. Now, the second time you saw it you said was about two or three weeks later? A. Yes, sir.

Q. And then she was in the stream? A. Yes, sir.

Q. Over at Tietjen & Lang's? A. Yes, sir.

Q. Did you go on board at that time? A. No, sir.

Q. And the third time she was tied to a pier, I understand? A. Yes, sir.

Q. Did you go on board then? A. Yes, sir. 2055

Q. Did you go down in the No. 1 hold? A. No, sir.

Q. Did you look into the hatch of the No. 1 hold? A. Yes, sir.

Q. And could you see the casks then? A. I did; yes, sir; I saw some on the deck also.

Q. All that you could see in No. 1 hold then were in the square of the hatch? A. Yes, sir.

Q. The fourth time she was in drydock that you saw her, is that correct? A. Yes, sir.

2056 Q. And did I understand you correctly to say that you did not go on board then? A. Not when she was in drydock; no, sir.

Q. And the fifth time you could not see her at all? A. Didn't see her at all.

Q. Well, then, as a matter of fact, you never went into the hold No. 1 of this ship, did you? A. Not to my knowledge; no, sir.

Q. And you never got within more than fifteen feet of any of these casks except those few that you saw on the deck? A. That is correct.

Q. There weren't very many on the deck at that time? A. I would say there was over a
2057 dozen.

Q. What examination did you make of those on the deck? A. Why, I just looked at them; I picked up a piece of a stick there and poked at the center; the head was out of some and it was as hard as a rock; some of it was black; it was strewn all around the deck; some had been broken at that time.

Q. Well, Mr. Liesegang, I think, said that this was like mud. Is that the way it appeared to you? A. Some was as black as coal; some was the color of mud.

2058 Q. Was it hard or was it almost liquefied by the water? A. No, the part of the one cask I poked with a stick was as hard as a rock and the rest was mud, lay around the deck.

Q. Did you make any investigation of these staves that were in those casks? A. No, sir.

Q. Can you state whether or not they were tongued and grooved or anything to prevent the water from going through the staves? A. Well, I can say the casks were paper lined.

Q. Did you see the paper? A. Yes, sir.

Q. They were the ordinary casks that were used for general merchandise, such as tobacco, weren't they? A. No, sir; I have never seen a cask like them any place in the Harbor of New York. 2059

Q. As a matter of fact, citrate of lime is often shipped in iron drums, is it not? A. Never to my knowledge, from Messina.

Q. Well, from what ports is it shipped in iron drums, then? A. I never heard of it shipped in iron drums. I have heard of it shipped in flour barrels from the Pacific Coast.

Q. But you never yourself have heard of it shipped in iron drums? A. Absolutely not.

Q. Or any metal drums? A. Absolutely not. 2060

Q. Now, you don't know anything about this payment of the duty yourself, do you, personally? A. Why, after I come back I inquired, yes.

Q. You were told? A. I was told and we got a receipted bill for it from our broker.

Q. Who attended to that? A. Lenhart & Brush are our custom house brokers.

Q. You don't know the date when this duty was paid? A. I believe it is about August 9th.

Q. You don't know of your own knowledge? A. Oh, no; absolutely not.

Q. And other than having this receipted bill, you don't know whether it was paid or not? A. I know it was paid; yes, sir. 2061

Q. That's all you have to bear you out in it is the bill? A. No, we have the Custom House Inspector's permit, that is, the Custom House has it.

Q. You have that? A. No, sir; the Customs Department has that; they always hold that.

Q. How did that get back to the Customs House? A. How did it get back?

2062 Q. Yes, how did the permit—the permit is issued to you, isn't it, when you pay your duty? A. You have got to file it on the dock before delivery can be taken; that is part of the Customs House records.

Q. Now, as a matter of fact, did you or your company make claim for refund of the duty from the United States? A. Yes, sir.

Q. And when did you make that claim? A. Why——

Q. If you know? A. On August 23rd or 24th I myself went to the Custom House.

2063 Q. That is after you had been up here? A. Up to 134th Street.

Q. 134th Street. Whom did you see there? A. Mr. Alendorf.

Q. And Mr. Alendorf is in what department? A. Why, I couldn't just recall the department, but he is the man in charge of that work, that is, our brokers told me, and I went down and seen him.

Mr. Carpenter: He is dead now.

Q. And you told Mr. Alendorf that this stuff

2064 was a total loss, didn't you? A. Yes, sir.

Q. And you asked for a refund of the duty? A. Well, he said he would have to take the matter up with Washington; it was beyond his control.

Q. And you made an application for the refund of the duty, didn't you—your company did? A. Yes.

Mr. Sprague: I call for the production of that application.

Mr. Carpenter: We got no notice to produce it. It is in the Custom House; we cannot produce it; we have not got it. 2065

Q .Have you a copy of that application in your office? A. I will see if I have one.

Q. If you have it will you bring it, please? A. Yes, sir, I will.

Q. As I understand it, you left on your vacation on August 7th? A. Yes, sir; Saturday.

Q. That was the day the ship got off? A. Yes, sir.

Q. And you didn't go back until sixteen days later, August 23rd? A. August 23rd. 2066

Q. And you of your own personal knowledge, don't know what transpired during that period of time? A. Only what I was told.

Q. Who was in charge of your department while you were gone? A. My assistant.

Q. What is his name? A. Mr. Huntington Erhardt.

Q. Do you know to whom you spoke when you called up the Williams Steamship Company? A. No, sir; I always asked for the Inward Freight Department, and somebody answered to that.

Q. And how many conversations did you have with the Williams Steamship Company about this matter prior to the arrival of the steamer? A. I had three or four anyhow. 2067

Q. Now, state the dates. A. I cannot do that.

Q. As far as possible. A. Well, they were all prior to August 7th I would say a week before the arrival of the steamer.

Q. And you had four conversations, as I understand you to say? A. Yes, sir.

Q. Telephone conversations? A. Yes, sir.

2068 Q. And you don't recall the name of the person to whom you talked? A. No, sir.

Q. Did you ask his name? A. No, sir.

Q. Did you talk with the same man every time? A. I couldn't state that; I didn't recognize his voice each time.

Q. Well, what is your recollection about it; was it the same man? A. It was always a man answered; I couldn't say it was the same man.

Q. You couldn't recognize whether it was the same voice or not? A. No, sir; he always answered for the Inward Freight.

2069 Q. Well, how do you know it was the Williams Steamship Company you were talking to? A. Well, because the operator answered to that; he could tell me the *Willdomino* was in Halifax.

Q. Did the man to whom you spoke say that he was the head of the Inward Freight Department? A. No, sir; I didn't ask him.

Q. Did you ask him if he was the head of the Inward Freight Department? A. No, sir.

Q. What did you ask him to establish his position in the office? A. I asked when the *Willdomino* was due.

Q. You didn't ask him anything as to what

2070 his position was in the office? A. No, sir.

Q. You say that the weight of these casks when dry and loaded was from 1,500 to 1,700 pounds? A. Yes, sir.

Q. And after that had been in sea water for three weeks what would you say was its weight? A. I would say they weighed about 2,000 pounds or more.

Q. Isn't it a fact that they absorbed at least 50 per cent. of water? A. I don't know.

2071

The Court: Why do you say 2,000 pounds or more? Did you weigh them?

The Witness: No, sir; I did not.

The Court: Oh, just a guess?

The Witness: Yes, sir.

Q. Have you ever had any experience prior to this with damaged citrate of lime? A. Never in my experience.

Q. How long have you been with Pfizer & Company? A. Sixteen years.

Q. And always as traffic manager? A. No, sir; I worked up from telephone operator. 2072

Q. How long have you been traffic manager? A. About eight years.

Q. And your duties as traffic manager are what? A. Why, to see that the cargo arrives right from the time it is shipped on the other side, until it arrives at our plant. I watch its movements and take care about the entry and pay the freight.

Q. You have nothing to do whatsoever that leads you into knowledge of the chemical properties of this citrate of lime? A. No, sir.

Q. Haven't anything to do with the manufacture? A. No, sir. 2073

Q. Or of the sale of it? A. No, sir.

Q. Purely the transportation? A. Absolutely.

Q. Did you pay the freight on this cargo of citrate of lime to the Williams Steamship Company? A. No, sir.

Q. You refused to pay it? A. Yes, sir.

Q. Do you know how much the freight was on this consignment? A. I don't recall the amount; no, sir.

2074 Q. Substantially $2,600, wasn't it? A. I don't know. We got the bill; we turned it over to our attorneys.

Q. Turned them over to your attorneys? A. Yes, sir.

Redirect examination by Mr. Carpenter:

Q. Mr. Haffey, you said that you never saw casks like those; what do you mean? A. Well, never any as strong as those.

Q. Now, I want to ask you one question: Did the Williams Steamship Company ever ask you
2075 to take delivery of this cargo before October 2nd or 4th? A. Not to my knowledge.

Q. Now, then, in those conversations that you had over the telephone prior to August 7th, when you went on your vacation, were you informed in any way that your cargo in the Willdomino had been damaged? A. No, sir.

Q. Was any telegram to that effect sent to you or other information sent you or given you? A. No, sir.

Q. Did you ever ask them point blank whether any injury was done to your cargo? A. Not
2076 prior to August 7th.

Q. Well, on August 7th? A. No, sir.

Q. Well, I mean did you ask them that on August 7th whether your cargo was damaged? A. No, I didn't ask them; no, sir.

Q. Now, did you have any knowledge from any source at all prior to the time you went on the steamship August 23rd that there was any damage to your cargo?

Mr. Sprague: Referring to his personal knowledge?

Q. Your personal knowledge as traffic man- 2077
ager? A. No, sir.

Q. Was any such knowledge given you before you left your office to go to the steamship? A. No, sir.

Q. What time of the day had you been in your office before you went to the steamship on August 23rd? A. I didn't go up until around two or three o'clock in the afternoon. I had been in the biggest part of the day prior to that.

Q. Now, then, why did you tell the insurance people on the ship on August 23rd that the citrate of lime was a total loss?

2078

Mr. Sprague: I object to that, your Honor, as calling for the mental processes of this gentleman.

Objection overruled.

(Respondent's counsel prays an exception, which is hereby allowed and sealed accordingly.

(Sealed.)

A. The reason I said that was there was two representatives from the insurance company there, and if I had given any estimated amount of damage and we had eventually taken the cargo and 2079
that damage had been more or less it may come back against me for making such a statement; in other words, I done that to protect myself.

Q. Now, you had a right, did you not, under your policy, if there was a loss of 51 per cent., to abandon it to your underwriters?

Mr. Sprague: I object to that, your Honor. That is a question of law and also

2080 calls for the contents of a written instrument.

The Court: I sustain the objection.

Q. You were asked whether you put in a claim to the Customs House for refund of your duty. Was your duty returned to you; did you get it back? A. No, sir.

Q. The Government refused to rebate, did they? A. Yes, sir.

Q. What was the reason that the Government refused to refund the customs duty?

2081 Mr. Sprague: I object to that, your Honor. There is no such claim in the libel; if there were, the way to prove it would be by the Government and not by this witness; he can only testify to hearsay on that point.

The Court: I will sustain the objection.

Mr. Carpenter: I can make it more direct, probably.

Q. Did the Government refuse to refund the duty paid on the ground that your claim was put in too late? A. Yes, sir.

2082 Q. Now, what was the date you put in your claim? A. Well, verbally on August 24th, I think, or maybe the 25th.

Q. And how shortly after that or how soon after that did you put in your written claim? A. Well, that I don't know till I see the letter.

Re-cross examination by Mr. Sprague:

Q. Well, Mr. Haffey, when you said that this cargo was a total loss you meant what you said, didn't you? A. Certainly.

Q. Now, as a matter of fact, didn't your assist- 2083
ant tell you in your office that morning that this citrate of lime had been under water before you went up to see the boat on the 23rd? A. No, sir; not to my knowledge.

Q. Quite sure about that? A. Yes.

Q. Didn't he tell you that they hadn't obtained the citrate of lime yet? A. They told me they hadn't taken delivery yet; they couldn't get delivery.

Q. And didn't they tell you that the reason why they couldn't was because the lime was under water? A. No, sir.

Q. You are quite sure about that? A. I think 2084
so; yes, sir.

Q. You are absolutely sure about it, are you? A. Yes, sir.

Q. What do you mean when you say that you never saw casks as strong as those before; the only casks which you saw were six, which were up on the deck and some of them were broken, weren't they? A. I have seen thousands of them.

Q. Well, the only ones you saw out of this shipment were up on the deck? A. Yes, sir.

Q. Some of them were broken? A. Yes, sir.

Q. How could you tell whether they were strong 2085
casks or not, if they were broken? A. What I meant by that is that the style of the package that was used was the same style as was used on all shipments prior and since then.

Q. What do you mean by saying these were the strongest casks that you ever saw? A. Just what I meant; I never seen a package as strong as that.

Q. Even though they were broken and the contents all over the deck of the ship, as you describe? A. When the question was put to me

2086 I had in mind the general style of package used for citrate of lime, not the particular casks on the deck that morning.

Q. Oh, you were no talking about the particular casks that this citrate of lime came in? A. No, not when that question was asked.

Q. What casks were you describing when you said they were the strongest that you ever saw? A. The general run of casks that was used for citrate of lime.

Q. Oh, what you mean is that the general run of casks used for citrate of lime is the strongest kind of casks you know of? A. Yes, sir.

2087 Q. And you are not referring at all to the casks that had this citrate of lime in? A. I am in this respect, that is the same kind of casks that was used on that shipment.

Q. I see. Who was this man left in charge of your department while you were away? A. Mr. Erhardt.

Q. Well, was he your assistant? A. Yes, sir.

Q. How long had he been your assistant? A. Well, I think about a year.

Q. How long had he been in that department? A. About a year.

2088 Q. How old a man was he? A. I would say he is in the twenties.

Q. What experience had he had in that line of business? A. I don't know what his prior connections was before coming to our concern.

Q. You don't know what he did while you were gone except what he has told you? A. Only what he has told me; yes, sir.

Q. What talk did you have with Mr. Erhardt this morning of the 23rd when you got back from your vacation about this citrate of lime? A. I asked him what was the trouble that he couldn't

get the citrate of lime; he said he didn't know; 2089
he couldn't get anything definite; he had been to Jersey City two or three times.

Q. Did he say he had been on board the ship down there? A. No, sir.

Q. Did he say that he had been to see the ship? A. He has been to see the ship over to Jersey City.

Q. Two or three times? A. Two or three times.

Q. And are you sure that he didn't tell you at the time that he found out that the cargo had been under water? A. I don't recall if he did.

Q. Of course, the reason why you hadn't asked 2090
for the return of this duty prior to the 24th was because you had been away on your vacation and didn't know anything about it? A. Well, that's the reason I personally didn't, but I left instructions with this young man in charge, if there was anything wrong to take it up with the broker. Now, we couldn't file prior to then, because we didn't know the condition of the goods.

Q. Well, the fact that you signed the general average bond on the 9th of August would indicate that you knew there had been some trouble with that ship, wouldn't it? A. 7th of August.

Q. Yes. A. I was away on the 7th of August. 2091

Q. You think Mr. Anderson signed it on the 9th of August? A. Yes, I didn't personally know it.

Q. That would indicate that there had been some trouble on the voyage, wouldn't it? A. That there had been some trouble, yes.

By Mr. Carpenter:

Q. Where is Mr. Erhardt now? A. On his honeymoon in Europe.

WILLIAM R. JEFFCOTT, called and sworn in
2092 rebuttal for the libellant, testified as follows:

Direct examination by Mr. Carpenter:

Q. Captain, what is your business? A. Marine surveyor.

Q. And how long have you been in that business? A. Seven years.

Q. Ever been to sea? A. Yes.

Q. How many years? A. Just under twenty-four years

Q. How old a man are you? A. Forty-seven.

Q. Now, in 1920, in August, by whom were
2093 you employed? A. Insurance Company of North America.

Q. And what was your position; what were your duties in that employment? A. Same thing, surveying ships and cargoes.

Q. In the course of your duties do you watch the maritime miscellany and the daily papers regarding ships? A. Yes.

Q. Did you see anything about the *Willdomino?* A. Yes.

Q. When? A. I have a note here, I think the first I noticed appeared on July the 8th, that said "St. Michaels July the 3rd; Ss. *Willdomino.*
2094 British, Lisbon for New York, arrived at this port with machinery defective."

Q. Then what did you hear after that? A. Next I saw in the papers in the maritime miscellany appeared on July 28th, that was when she had arrived at Halifax, Nova Scotia: "Halifax, N. S., July the 25th: Ss. *Willdomino,* British, from Palermo for New York via Halifax, struck an uncharted rock off Canso, N. S., on Saturday, and tore a big hole in her bow; her forepeak is full of water. The Canadian Gov-

ernment steamer *Lady Laurier* has been dis- 2095
patched to her aid; the vessel is five miles off White Isles and 65 miles from this port."

Q. Now, did that say anything about any of the holds being full of water? A. No.

Q. Just the forepeak? A. Just the forepeak.

Q. That is not connected with the hold? A. Not if the bulkhead stands.

Q. When the vessel arrived in New York did you learn of it? A. Yes.

Q. When she arrived what did you do? A. She arrived on Saturday. I first went to the vessel, I think, on the following Tuesday.

Q. That was August 10th? A. No, I think it 2096
was August 11th when I first went to the ship in the morning.

Q. Did you have any instructions to go aboard or just in line with your duty to see if there was any damage? A. Well, I knew we had some interests on board and I went on board to see what the situation was, see if there was any damage to any of the cargo.

Q. When you went aboard did you know that any cargo was damaged? A. No.

Q. Well, where was the vessel when you saw her? A. At Pier C, Jersey City.

Q. Do you know what time of the day it got 2097
there? A. In the morning, probably about ten o'clock—10:30 o'clock.

Q. Well, did you have any conversation with any of the officers? A. I saw the captain.

Q. Captain Beebe? A. Yes.

Q. And was Captain Gilboy aboard that day? A. I didn't see Captain Gilboy aboard that day.

Q. Did you have any talk with Beebe? A. Yes.

Q. What did he tell you? A. I asked him where the citrate of lime was and he smiled or

2098 laughed. He said, "I am afraid there is not much left." I said, "What do you mean?" He said, "Number 1 hold is full of water," and he said all the citrate of lime is down there. So I wanted to get below to see the thing, but the hatch was closed. He said the hatch wouldn't be opened for some days; they wanted to get the lemons off first.

Q. What were they doing when you were there that day? A. They were discharging lemons.

Q. Did he say anything about what other cargo they had? A. No.

Q. Well, how long did you stay aboard the ves-
2099 sel that day? A. Oh, probably half an hour; I couldn't see anything down there, so I left.

Q. Did you ask him about how the accident happened? A. No, not at that time.

Q. Now, then, did you go back to the ship after the 11th? A. Yes, I went back again about—oh, about six days later—yes, about the 16th or 17th, I think the 17th of——

Q. Of August? A. Yes.

Q. Whom did you see there that day? A. I saw the captain there and the superintendent, Capt. Gilboy; that was in the afternoon.

2100 Q. Did you have a talk with him? A. Yes.

Q. What was the conversation at that time? A. Well, the first thing I wanted to see in No. 1 hold and the hatch was still closed and then I asked directly to have the hatch opened so that I could see what was there, see the conditions.

Q. Who did you ask that? A. I asked the captain, Capt. Gilroy was there at the same time.

Q. All three of you together? A. Yes.

Q. What did they tell you? A. Well, they said they didn't want to open the hatch because

they didn't want any of the stevedores who were discharging the other cargo to know that the ship was damaged or that there was water in her, said it might affect the stevedoring rates. 2101

Q. Well, does it affect stevedoring rates, if there is damage to a part of the cargo? A. It might.

Q. In what way? A. They might want a higher rate.

Q. Is there a higher rate for stevedoring damaged cargo than cargo that is not damaged? A. Yes.

Q. Well, did they open No. 1 hold for you that day, August 17th? A. No. 2102

Q. How long were you there that day? A. A. Probably an hour.

Q. And did you notice the lemons? A. Just noticed the cases in a general way as they were coming off, some on the pier and some on the ship.

Q. And were they putting them right on the pier to which she was lying?

Mr. Sprague: I object to the question about the lemons. I don't see what that has to do with the case. 2103

Q. That's all.

Cross examination by Mr. Sprague:

Q. Did you visit the *Willdomino* more than twice? A. Yes.

Q. When was the third time that you visited her? A. The third time I think was on the 19th of August in the afternoon.

2104 Q. Where was she then? A. She was then at 134th Street, North River.

Q. And did you see Capt. Beebe then? A. No, he was not on board then. I went on board then and the No. 1 hatch was open; that's the first time I had seen it.

Q. You went down to the number 1 hatch? A. I went down to the 'tween decks.

Q. Did you observe the citrate of lime in the lower No. 1? A. Well, I could see part of some of the casks, just a portion of some of the casks.

Q. The rest was under water, was it? A. The
2105 rest was under water; there was cork in there at the same time; all you could see was part of a cask here and there above water.

Q. You didn't go down on top of the casks at all? A. No, I did not.

Q. The water came up over all except the upper tier and over part of the upper tier? A. There was just a portion of the upper tier as I recollect it, probably half of the upper tier.

Q. Half the barrel was out of water? A. Half the barrel would be out of water or perhaps less than half.

Q. You could not see anything except just in
2106 the square of the hatch? A. Well, when you go into the 'tween decks you can look up towards the wings, of course with the hatches all off; you see less as you go out it gets darker out at the wings.

Q. Your employer is the Insurance Company of North America? A. Yes.

Q. What risk did they cover? A. We had the insurance on the Citro Chemical, I think there was 168 casks.

Q. Mr. Rodman was working with you, wasn't he? A. Yes, he handled the cargo.

Q. Beg pardon? A. He handled the cargo 2107
end of it.

Q. Well, are you his superior or is he your superior, or are you in different departments? A. Neither; we are in different departments.

Q. Well, now, Mr. Rodman has testified and introduced his survey from which it appears that this loss was reported on the second of August. A. On the second of August.

Q. 1920? A. Yes; that may be; he might have a lot of things that I wouldn't hear of.

Q. But you were not on the job until the 11th as I take it? A. Well, I knew we had some 2108
stuff on that ship and I watched the arrivals and then I saw that she had been in trouble.

Q. And of course—— A. But from what I could see——

Mr. Carpenter: I object to the form of the testimony, your Honor; I don't find Mr. Rodman's report or anything from his testimony that he knew anything on August 2nd and I think counsel is mistaken in his statement.

Mr. Sprague: The survey, your Honor, says "loss reported August 2, 1920." 2109

The Court: Unless you show that this witness has some knowledge of that statement, I don't see how he is concerned.

A. That form of Mr. Rodman's would probably mean that the interest was reported to him on the ship.

Q. That's just your guess about what it means? A. Yes, that is only what I surmise it might mean.

2110 Q. Mr. Jeffcott, you went to Halifax in regard to this matter, didn't you? A. Yes, later on.

Q. When? A. About early in October.

Q. And how long were you in Halifax in regard to it? A. Four or five days.

Q. And you were in conference with Lloyd's agent and with the representatives of the London Salvage Association and the Port Warden, were you not? A. Yes.

Q. You ascertained everything that had been done up there? A. Yes.

Q. Did you ask Capt. Beebe to open hatch
2111 No. 1 on August 11th? A. No, not on August the 11th.

Q. The only time you did ask it was on August—— A. I asked on August the 16th. I told him on August the 16th that I would like to see there and he said that they were so busy with the lemons and they wanted to get them off and he said, "The number 1 hold is full of water, the citrate of lime is all wet——"

Q. So you knew the lime was under water on August 11th? A. I knew the lime was under water on August 11th.

Q. But you didn't see it yourself? A. But I
2112 didn't see it; then on the next day, which I think was the 16th or 17th, it was a Tuesday, I think it was the 17th when I went on board. Then I asked for the hatch to be opened. I was anxious to see the condition there for myself; and then I found there was a very strong objection, much stronger than I had realized.

Q. But on the 19th, when you actually saw it—— A. The 19th, the hatch was already open when I got there.

Q. And what he had told you on August 11th was verified by what you then saw? A. Yes.

Redirect examination by Mr. Carpenter: 2113

Q. You opened it on the 19th for what purpose? A. What is that?

Q. For what purpose was it opened on the 19th? A. I don't know.

Q. What were they doing; were they taking out cork? A. Yes, they had taken cork from the 'tween decks. When I was actually in the hatch they weren't doing anything.

Q. Where was the vessel on the 19th? A. In the afternoon when I was there she was then up at 134th Street and North River.

Q. That's all. 2114

Recross examination by Mr. Sprague:

Q. Did you ever have any experience with damaged citrate of lime before this? A. No.

Q. Did you know anything about it at all, about the qualities? A. Not chemically, no.

Q. That's all.

By Mr. Carpenter:

Q. You are not a cargo surveyor? Are you? A. No. 2115

By Mr. Sprague:

Q. What were you surveying then, if you were not a cargo surveyor? A. Well, the damage to the ship if the damage to cargo has occurred through damage to the ship.

Q. But you were there in the interests of the underwriters on the cargo, weren't you? A. Surely.

2116 Q. And you were surveying his interests? A. Yes.

Q. You weren't interested as to how far the ship was damaged, were you? A. No.

Q. You were interested in how far the cargo was damaged? A. I was interested in the cause of damage to the cargo, not only actual damage to the cargo itself, in what had caused that damage is what I tried to investigate.

Q. What did you find was the cause of the damage to this cargo? A. The cause of the damage to this cargo was the water coming in.

2117

HUBERT GRUNENBERG, called and sworn in rebuttal on behalf of the libellant, testified as follows:

Direct examination by Mr. Carpenter:

Q. Dr. Grunenberg, what is your profession? A. Chemist.

Q. And with whom are you associated? A. I have my own laboratory and am associated with Dr. Coblentz.

2118 Q. The Coblentz Laboratory, New York? A. Yes.

Q. What has been your education as chemist? A. Graduated from Munich, Germany, 1893, and then I studied in Zurich, Paris and Berlin.

Q. Have you made any particular study of citrate of lime? A. Yes, I have.

Q. And for what period of time? A. All kinds of citrate of lime, technically and C. P.

Q. What is C. P.? A. Chemically pure.

Q. Now, then, do you know what effect sea 2119
water has on citrate of lime? A. Sterile sea water has no effect at all.

Q. By the way, whereabouts is citrate of lime produced? A. Citrate of lime is produced by use of lemons and limes and other citrous fruits in connection with calcium carbonate, that is carbonate of chalk.

Q. By whom is it produced in Italy? A. Mostly in Italy but sometimes in Spain, mostly in Italy.

Q. Is it made by a lot of different people over in Italy? A. The Government has taken it over.

Q. Government industry, is it? A. Govern- 2120
ment industry at present.

Q. Is it produced in this country? A. In California.

Q. Now, what is citrate of lime used for? A. Several uses. The chemically pure stuff is used for medical purposes, for lemonades, for making magnesium citrates and technically pure stuff for printing calico.

Q. Now, you say that sterile sea water has no effect? A. No effect at all.

Q. How do you account for that? A. Citrate of lime can only decompose in presence of bac- 2121
teria.

Q. Now, then, how do they get the citric acid into the lime to make citrate of lime? A. The use of lime and lemons is expressed and neutralized with chalk, calcium carbonate and this stuff comes out technical citrate of lime.

Q. What is the lime for? A. To neutralize the citric acid.

Q. Why don't they ship the citric acid over as citric acid instead of with lime? A. You

2122 couldn't do that because the citric acid contains several impurities.

Q. And is the lime anything more than a carrier for the citric acid? A. It is a carrier and stabilizer because it is insoluble in water.

Q. Now, then, what would be the effect on citrate of lime of first immersing it in sea water and keeping it in sea water for some days and then taking it out after, we will say it had been under water for several days, and taking it out and unloading it from a place where it had been wet; would there be any salvage value in it? A.
2123 I cannot tell you that; it depends on the presence of bacteria in sea water; if bacteria are present in the sea water it will start to attack it and decompose it.

Q. Start decomposing? A. To decompose it. Sea water itself is almost sterile; it should have no effect at all except when it comes in the wet state and is exposed to the air, it will decompose because it is exposed to the bacteria.

Q. Then you think it is a bad thing, if citrate of lime has been wet with sea water, to expose it to the air? A. I certainly think so.

Q. Now, you know the facts of this case, don't
2124 you, how the citrate of lime was first wet off Cape Canso; then the vessel was towed into Halifax with water in No. 1 hold where the citrate of lime was in casks. A. I do.

Q. You heard that; now, would it have been possible to have taken out the citrate of lime in Halifax; if it had been taken out of the ship would it have been possible to stop that fermentation? A. Certainly.

Mr. Sprague: I object to that, your Honor, unless he knows the facilities at Halifax.

The Court: Assuming that it would have been possible. 2125

A. That would be possible.

Q. Well, how would you stop the fermentation in citrate of lime that was wet? A. Fumigation with sulpho-dioxide.

Q. Now, is there any other way of stopping fermentation? A. That is the way that is mostly used.

Q. Was that a well recognized process in 1920? A. Absolutely recognized.

Q. Well, is there any other way of stopping fermentation that you know of? A. Sterilization, heating up to a certain temperature. 2126

Q. That is the sterilization process? A. That is the sterilization process.

Q. Would the presence of the salt, whatever the percentage of salt there is in sea water—what harm would that cause to the citric acid? A. Contamination, that's all.

Q. So you think the only danger is through the contamination, in the causing of the bacteria to work, is that it? A. No, I don't think so. The contamination has nothing to do with the working of the bacteria.

Q. Well, what do you mean by the contamination? A. The contamination with sea water alone. 2127

Q. And what effect would that have? A. It makes the citric acid impure.

The Court: That is, the salt does?

The Witness: The salt does.

The Court: Is there salt present in sterile sea water?

The Witness: Salt always is present.

2128 Q. Now, assuming, doctor, that a cargo of citrate of lime were immersed in sea water off the coast of Nova Scotia, we will say on the 27th or 28th of July, and the vessel containing that sea water and citrate of lime immersed in it reached Halifax, say the third of August——

Mr. Sprague: The stranding was the 24th of July; she reached Halifax on the 27th.

Q. Assuming it was immersed on the 24th of July and then reached the port of Halifax on the
2129 27th of July, and then the cargo was not taken out, but ballast were put on the stern of the vessel and the prow partly raised, then in that position she was towed—I think the water level dropped three feet in the hold; in that position she was towed down to New York and off the Cape the ballast was thrown off and the prow went down again the three or four feet; then the vessel was towed into New York Harbor, reaching New York on the 7th of August, and then the remaining cargo was unloaded from the other holds of the vessel; she went still further
2130 down by the head; then she was towed over from Jersey City to New York, placed on dry dock on two occasions, the dry docking first taking all the water out of the hold, when she was put again into the river, the hold filled up again, and then she was put on dry dock the second time and after that she was placed in the water again and the cargo not removed until about October 4th; do you think that the subsequent immersions to those following the first one would have any effect on the citrate of lime? A. I think so.

Q. What effect would you say it would have? 2131
A. The first immersion in sea water would have very little effect; fermentation would come with exposure to the air. The nourishment, the food for the bacteria is found in the sea water; the subsequent immersions would have a very bad effect on the citric acid.

Q. What effect would they have, doctor? A. The effect would be simply to help fermentation.

Q. Do you think it would do as much harm to immerse citrate of lime in the same water repeatedly, as it would to immerse it in a change of water, different sea waters? A. It would do 2132
very little harm in the same water because the food for the bacteria would be exhausted.

Q. There is such a thing as exhausting the food for the bacteria? A. Yes, the change of water would give a new food.

Q. The change of water furnishes new food that they didn't have before? A. Didn't have before.

Q. Wasn't in the other water. Now, assuming from the last hypothetical question I gave you, assuming that this cargo of citrate of lime had been unloaded at Halifax and had been placed on a wharf there or had been shipped 2133
rapidly to New York, would it have been possible to have saved any of the citric acid content?

Mr. Sprague: I object to that.

Q. By well recognized processes I will say? A. Oh, yes, it would be possible.

Q. And what processes are used? A. First fumigation with sulpho-dioxide; second centrifugation.

2134 Q. What is that process? A. Driving out the moisture; three, using a filtering press.

Q. Now, is there any such process as the process of electrolysis? A. The process of electrolysis is not used in this country.

Q. Now, then, by the use of those different methods that you have given us, would there have been any value saved out of the citric acid? A. In my opinion it would have been saved in Halifax about 90%.

Q. You mean of the total value? A. Of the total value.

2135 Q. What would the cost have been at Halifax of saving the 90%?

Mr. Sprague: That I object to; he has not been qualified to testify as to what the cost would be at Halifax.

The Court: I will permit this.

A. It depends on the cost and the expense of the sulpho-dioxide and the space to have air dried it.

The Court: You will have to assume

2136 that, I suppose.

A. I don't know that.

Q. What do you mean by air dry it, exposing it to the open air? A. The citrate of lime is taken out from the barrels, out on the floor and dried it.

Q. How thickly would you have had to spread it? A. When it is fumigated with sulpho-dioxide it is preserved for several weeks.

Q. How do you fumigate it with sulpho-dioxide? A. Can be done in several ways;

sulpho-dioxide is either put in in gaseous form or as calcium. 2137

Q. How do they put that in? A. In water.

Q. Can they put it right in the cask? A. They can put it right in the cask, mix it in.

Q. Mix it right in the cask, take the head out and put it down? A. It is done in Italy to preserve it.

Q. And what is the third method that you spoke of? A. That is not used in this country.

Q. What would have been the cost of fumigating these casks of that stuff with sulpho-dioxide? A. Very little.

Q. What would you say, how much would it take to put in a cask; you know the sized casks that this comes in, do you? A. I know. 2138

Q. How much would it take for a cask? A. A cask is 1,200 pounds, about 1,200 pounds.

Q. Twelve or fifteen? A. About thirty pounds.

Q. About thirty pounds to a cask? A. Yes, sulpho-dioxide.

Q. What was the cost of sulpho-dioxide in 1920? A. I cannot tell you; sulpho-dioxide is very cheap.

Q. Now, is that a well recognized fumigation process? A. It is. 2139

Q. And was it in 1920? A. It was.

Q. By the way, I happen to know something about benzoids. Could benzoids have been used for fumigation? A. It couldn't be used.

Q. Could not. Now, what is the purpose of mixing the sulpho-dioxide in the cask of citrate of lime? A. To destroy the bacteria and stop the fermentation.

Q. How would you get rid of the moisture, the water in the cask after that? A. Simply air dried.

2140 Q. Spread it out and dry it? A. Spread it out and dry it.

Q. While you had it spread out and dried by the air, would there have been any likelihood of the bacteria working any more? A. Couldn't if the sulpho-dioxide is applied.

Q. What does that do, destroy the bacteria? A. Yes.

Cross examination by Mr. Sprague:

Q. Doctor, you have studied this subject a good deal, haven't you? A. Yes.

2141 Q. How long have you studied it? A. You mean calcium citrate or citric acid?

Q. Calcium citrate. A. Since ten years.

Q. Since ten years? A. Since ten years.

Q. What have your studies consisted of? A. I intended to make it in a different way.

Q. You intended to make it in a different way? A. Yes.

Q. Well, did you find that different way and are you making it? A. I didn't succeed.

Q. You studied the subject very exhaustively then? A. I think so.

2142 Q. There are very few people that have studied it as exhaustively as you have? A. I don't think so either.

Q. The ordinary person knows very little about these methods that you have mentioned, don't they? A. These methods are known; the new method is known; it is used in Russia.

Q. But very few people in the ordinary commercial world here know about citrate of lime or the reconditioning of it, isn't that so? A. I don't think so.

Q. Now, you spoke about sterile sea water; 2143
where would you find sterile sea water? A. I tell you; I remember, sometimes there is sea water taken out from a depth of twenty feet is almost sterile. I have read it.

Q. Well, isn't it true that sea water even in the middle of the ocean, within fifty feet of the surface is not sterile? A. I can only say what I have read; I don't have no other experience.

Q. Well, the surface of the sea water, even in the middle of the sea is non-sterile, it is full of animal life, isn't it, and bacteria? A. Animal life is different from bacteria.

Q. Well, it is full of animal life, isn't it, upon 2144
which bacteria feed? A. It is, but I don't know about the bacteria.

Q. You would not expect to find sterile sea water five miles from the coast, would you, which flooded into a ship from a hole? A. I wouldn't expect it.

Q. That wouldn't be sterile water, would it? A. Certainly not.

Q. Sterile sea water would be water which you had boiled, for instance, and purified and then put in a percentage of salt, wouldn't it? A. That would be sterile.

Q. But sea water that you took from the sea 2145
isn't sterile, is it? A. It is not.

Q. Now, as I understand your direct examination, this citrate of lime is prepared by condensing lemon juice and then combining it with chalk? A. Yes, sir.

Q. There is very likely to be considerable impurity in that manufacture, isn't there? A. There are impurities in it.

Q. You find lemon pits ground up, you find twigs and all that goes in the citrate of lime,

2146 don't you? A. I don't think so; it is purified by the Italian government.

Q. When did the Italian government take over this business as a government business, if you know? A. I was told about five or six years ago.

Q. That is, you were told that? A. Yes.

Q. You don't know that of your own knowledge? A. No, not of my own knowledge.

Q. Now, in this citrate of lime there are various impurities, are there not? A. There are.

Q. And those impurities are food for bacteria are they not? A. Only small quantities of it.

2147 Q. Have you experimented to find out about that, doctor? A. Yes, I have.

Q. And how much do you find? A. Less than 1/10th of a per cent.

Q. Less than one-tenth of one per cent; well, 1/10th of one per cent in a cask weighing 1500 pounds would be quite a lot of impurity, wouldn't it? A. There are other impurities in it, but no bacteria.

Q. No bacteria? A. No bacteria.

Q. Have you ever analyzed any water from the bilge of the ordinary tramp ship to find out how

2148 much bacteria there is in that? A. No, I never have.

Q. You know what the bilge is in a ship, don't you? A. I do.

Q. And you usually collect down there all sorts of drainage from various things? A. I never have.

Q. You would expect to find various bacteria in that? A. Certainly.

Mr. Carpenter: How could you get the bilge water in the hold of a ship without sinking the whole ship?

Mr. Sprague: Well, the bilge water gets into the other water when the other water comes into the hold. 2149

Q. What bacteria is it that decomposes this citrate of lime? A. There is three different bacteria; penecillium glaucum; myxodema commune; myxococcus liqueous.

Q. Now, don't certain of these bacteria, these three that you have mentioned with such long names, feed on bacteria in the air also? A. The bacteria of the air?

Q. There are bacteria in the air, are there not? A. Yes. 2150

Q. And they do feed from bacteria in the air, do they not? A. No, no, these are the bacteria.

Q. And what do they feed on? A. They feed from the citrate of lime.

Q. And those bacteria are also found in the citrate of lime, are they not? A. No, they are not found.

Q. Where do they come from? A. From the air.

Q. They come from the air, and they feed on the impurities in the citrate of lime? A. Feed on the impurities in the citrate of lime. 2151

Q. How much is the content, if you know, of citric acid in the citrate of lime? A. About 66-68%.

Q. And the rest is—— A. Calcium.

Q. Chalk? A. Chalk.

Q. Now, when this feeding takes place is there not also a chemical reaction? A. There is a chemical reaction.

Q. What is the chemical reaction of the sea water on the citrate of lime? A. You mean together with the bacteria?

2152 Q. When the sea water is introduced upon the citrate of lime. A. The bacteria upon the citrate of lime?

Q. Yes. A. The citrate is broken up. It is destroyed. The calcium carbonate and other products.

Q. Well, now, this calcium carbonate is left right in the solution, isn't it? A. No, it is insoluble in water.

Q. Have you ever performed any experiments—I presume you have—with sea water on this citrate of lime? A. Not with sea water.

2153 Q. Well, would it surprise you to know that in such experiments a little coating of what appears to be calcium carbonate was found around the different particles of citrate of lime? A. It would surprise me, yes.

Q. You admit that there is carbonate given off? A. There is carbonate of lime given off.

Q. And that is insoluble and left in the mass? A. My opinion is it will come up as a scum on the top.

Q. It will go around the sides, too, will it not? A. It will.

Q. As a yellowish fringe around the sides of
2154 the barrels? A. I don't know the color.

Q. And that would tend to protect the rest of the citrate of lime, would it not? A. It would not.

Q. Why would the calcium carbonate come to the top as a scum, it is heavier than water, is it not? A. There are other products formed with the calcium carbonate, not that alone.

Q. You are not answering my question; why should the calcium carbonate come to the top when it is heavier than water? A. The specific gravity of the water is changed by fermentation.

Q. So that you mean that the water is now heavier than the carbonate? A. I wouldn't say that; the calcium carbonate would be floating around. 2155

Q. But you have never made any experiments yourself with sea water? A. No.

Q. Now, do you know anything about the facilities at Halifax for reconditioning this citrate of lime which is damaged in this manner? A. I don't know of the facilities, but I think the sulphur-dioxide would be available there.

Q. Well, now, assuming that this could be taken out of the ship by some means which have not been presented to us as yet, how would you take, as a commercial proposition now, and recondition this damaged citrate of lime, 550 barrels of it, each barrel weighing some 1,500 to 1,700 pounds, at a port unless there is a reconditioning plant there for doing that work? A. I cannot answer that question unless I know the facilities in Halifax. 2156

Q. Well, how would you do it here where you had facilities? A. I would get the sulphur-dioxide first and fumigate it, about 20 pounds for one barrel.

Q. Then you would open each barrel up, would you? A. I would open the barrel first. 2157

Q. And what would you do with it? A. I would put it in a gaseous state, the sulphur-dioxide.

Q. Put the sulphur-dioxide—— A. In the barrels.

Q. It would have to be then in an air tight room, wouldn't it? A. It must be an air tight room.

Q. And the citrate of lime would be spread all out? A. No.

2158 Q. So that this gas would go through? A. No, later on it is spread out.

Q. Well, I still don't understand how you would get the sulphur-dioxide into the citrate of lime, which up to this time is still in the barrel. A. You can open the barrels and put it in by means of a pipe.

Q. You would stick a pipe—— A. Pipe in the muddy mass and pass the sulpho-dioxide in the barrels.

Q. Under pressure? A. There is pressure there present.

2159 Q. Beg pardon? A. Sulphur-dioxide is the pressure by itself.

Q. Have you ever seen that method used? A. I have seen it.

Q. With barrels? A. Not with barrels.

Q. Haven't you in all cases that you have seen had the citrate of lime taken out of the container before the sulpho-dioxide is put into it? A. I have seen it kept in the container.

Q. In what sort of a container? A. Drums—iron drums.

Q. In iron drums—citrate of lime? A. Not citrate of lime.

2160 Q. What have you seen in those? A. Calcium mollate.

Q. What sort of substance is that as compared with citrate of lime? A. It is related to citrate of lime itself.

Q. How large drums were those? A. 500 pounds.

Q. Well, now, after you have passed the sulphur-dioxide through the citrate of lime, what would you next do? A. Get rid of the water.

Q. And I understand your direct examination

to be that you would do that by heat? A. Air drying. 2161

Q. Or by air drying? A. Air drying.

Q. Now, to do that you would have to take it out of the barrels, wouldn't you? A. Spread it out.

Q. How thick layers; have to spread it out on racks, would you? A. No, that is generally done with bricks, by means of bricks, the moisture goes through the bricks.

Q. You have a brick floor, do you? A. A brick floor.

Q. And there is heat applied to the bricks? A. No heat at all. It dries by itself. 2162

Q. Do you have to have a brick floor? A. Brick floor.

Q. Specially constructed? A. Yes.

Q. Special kind of brick? A. No, ordinary bricks are used.

Q. And the brick draws the moisture up, is that so? A. Draws the moisture out.

Q. The bacteria have been killed already—correct? A. Killed by the sulphur-dioxide.

Q. Now, what is your method of taking out the water, by centrifugation, is that by centrifugal force? A. By centrifugal separator. 2163

Q. And how much of the moisture would you take out that way? A. I would take out about 94 to 95 per cent of the moisture.

Q. Take out as much as that, you think? A. Yes.

Q. And you would still have left 5 or 6%? A. 5 or 6%.

Q. Well, isn't that 5 or 6% moisture enough for bacteria to feed upon if there are any bacteria in there? A. The sulphur-dioxide is present.

Q. So you would use the sulphur-dioxide in

addition to the centrifugation? A. That is used before.

Q. The centrifugation method simply takes the place of the air drying, is that correct? A. I would say that the centrifugation simply separates the water from the compound.

Q. It does not kill the bacteria? A. No.

Q. You have to have the dioxide method first for that? A. Yes.

Q. How much would you dry by centrifugation at a time? A. That depends on the size of the separator.

Q. And what is the size of the commercial separator? A. You could separate about a thousand pounds at a time.

Q. How long would it take to separate a thousand pounds? A. Thirty minutes.

Q. You don't find those centrifugal separators commonly and ordinarily around, do you, in a seaport? A. I don't know.

Q. They are found in laboratories, are they not, and factories where they make this material? A. And plants.

Q. Is this centrifugal separator the same size that they use in sugar refineries for taking the moisture out? A. I think it is the same.

Q. Same size; same kind of separator? A. Yes.

Q. Do you mean to say that they put as much as a thousand pounds of sugar in one of those separators at a time? A. Dye plants use them.

Q. Are you sure that they use as much as a thousand pounds at a time in one of those separators? A. I have been told so.

Q. That is by hearsay again, is it? A. I cannot tell you from experience.

The Court: He has been told so; I suppose that is by hearsay. 2167

Q. Do you know how many revolutions per minute such a centrifugating machine makes? A. No.

Q. Well, the cost of the purchase of the sulphur-dioxide is only a small part of the cost of reconditioning, isn't it? A. Very small part.

Q. The expense of having this laid out and using air tight rooms and the labor is the large part of such reconditioning, isn't it?

Mr. Carpenter: He didn't say an air tight room; that is Mr. Sprague's own word. 2168

Mr. Sprague: I think he stated on my examination there would have to be an air tight room.

Mr. Carpenter: He said a tight room, not an air tight.

The Court: Permitted.

A. It is.

Q. Doctor, wouldn't the effect of introducing sulphur-dioxide into citrate of lime be to also form sulphurous acid? A. There is very little sulphurous acid formed. 2169

Q. Well, it would form some sulphurous acid, wouldn't it? A. Very little.

Q. How much, in your opinion? A. Not more than 1/5 of one per cent.

Q. Well, that would take out part of the citric acid content? A. It would not; it would combine first with the calcium carbonate.

Q. What would happen then? A. After that it would take out part of the citrate of lime.

2170 Q. Then what would happen? A. It would be free citric acid.

Q. But you would have this combination of the sulphurous acid and the carbonate present as additional impurity? A. Yes.

Q. In the citrate of lime. Well, isn't sulphur-dioxide very soluble in water? A. 18 parts will dissolve 100 parts of water.

Q. Well, then, wouldn't there be more sulphurous acid here than you have suggested, 1/5 of one per cent? A. There would not.

Q. There would not in your opinion? A. No.

2171 Q. Even a chemically pure citric acid contains some impurities, does it not? A. I don't know.

Q. Well, if you were to buy C. P. citric acid, you would find the analysis, would you not, showing a certain amount of impurities, say about 1/3 of one per cent? A. It generally shows some impurities in calcium sulphate.

Q. And also some magnesium, doesn't it? A. Sometimes magnesium sulphate too.

Q. I understood you to say that the salt would contaminate, would make the citric acid impure; that is correct, is it? A. That is correct.

Q. Do you know of your own knowledge how
2172 much salt would be taken into a—say a volume of 100 parts of citrate of lime by immersion in sea water for say two weeks? A. According to the proportion of sea water.

Q. The same percentage. A. About three per cent of salt.

Q. That impurity would be considerable damage to the citrate of lime? A. It would not.

Q. Why not? A. It is washed out.

Q. But it would require another process, in addition to the two that you have mentioned, would it not? Your dioxide wouldn't take it

out, or air drying wouldn't take it out? A. The filtering press would take it out. 2173

Q. That is a third process? A. That is a third process.

Q. To get it back in the position it was at first? A. Yes.

Q. Which has the greater effect, the contamination by salt or the fermentation caused by the bacteria? A. The fermentation.

Q. Did you examine this citrate of lime after it came to New York? A. I didn't examine it.

Q. Did you have anything to do with it? A. Not at all.

Q. It wasn't examined or tested or analyzed in your laboratory? A. Not at all. 2174

Q. May I ask when you were first called in on the case?

Mr. Carpenter: May I call this to your Honor's attention, that the sample that was taken, according to the proofs on behalf of the plaintiff, was only from the top tier of barrels that were partly out of water. There is no evidence that there has been any specimen taken from any of the lower tiers. Furthermore, these analyses were not taken until September, quite a while after the 23rd of August, and I think for that reason the question assumes a lot of facts not in this case, and cannot be supported as evidence in the case. 2175

The Court: My recollection is that the samples were taken on the 23rd or the succeeding day, although the analyses may not have been submitted until September second; certainly on September second, the libellant wrote to the owners of the

2176 vessel and said that the analyses showed a total loss.

Mr. Carpenter: Furthermore the certificate of analysis does not show that sample, gives the percentage of citric acid content and says that some of it smells fermenting and some smells burned; that is your own analysis in evidence.

A. I was called by Mr. Carpenter about three weeks ago.

Q. It appears in the testimony that certain chemists connected with the owners of this ci-
2177 trate of lime and others examined specimens of the citrate on or about August 23, 1920, and on the basis of their examination the owners, who were manufacturers of citric acid, stated that it was a total loss. Now, at that time the vessel had not been placed in dry dock and the water had not run out from it, except as it had run out from a part of the first tier of barrels when the ballast was put at the stern of the ship in order to lift the bow up. I think there was a loss there of about three feet; that would indicate that the damage had been entirely previous to
2178 the time that it was exposed to the air——

Mr. Carpenter: I object to that as a conclusion based on hearsay.

The Court: Strike your statement out. That is not really a question; it is argument.

Mr. Sprague: I was about to put a question to him.

The Court: All right; leave out your assertion. The rest of the question may stand.

Mr. Sprague: Unfortunately I hadn't come to my question yet. I was about to ask him—— 2179

The Court: That statement of facts may stand.

Mr. Sprague: It is not my analysis, it is your analysis.

Mr. Carpenter: Well, it is marked on your case.

The Court: Revise your statement, so that the Court may have the facts.

Q. It appears in the testimony that certain chemists connected with the owners of this citrate of lime and others examined specimens of the citrate taken on or about August 28th, 1920, and on the basis of their examination the owners, who were manufacturers of the citric acid, stated that it was a total loss. Now, at that time the vessel had not been placed in dry dock and the water had not run out from it except as it had run out from a part of the first tier of barrels, when the ballast was put at the stern of the ship in order to lift the bow up—I think there was a loss there of about three feet—— 2180

Mr. Carpenter: You state that we said that on the basis of that analysis it was a total loss. He said it when he first looked at it. 2181

Mr. Sprague: I shall ask to stand on that question, your Honor.

The Court: You may ask it both ways so that we will get it correct on the record. Go ahead, what is your question?

Q. How do you explain a total loss before the

2182 water had been allowed to run off from this citrate of lime? A. I don't think there was a total loss.

Q. How much of loss occurs at once, upon the entry of sea water into this citrate of lime, if you know? A. The first entrance of sea water?

Q. Yes. A. Very little loss.

Q. With the exception of the contamination by the salt? A. With the exception of the contamination by the salt, that's all.

Q. How long does it take for these bacteria to get to work and to cause this breaking up of
2183 the citric acid? A. It depends on the temperature of the water.

Q. Well, does it—— A. One week to three weeks.

Q. The hotter the temperature, the better it works? A. Yes.

Q. August you would consider a time when the bacteria would work rapidly, would you? A. Rapidly, yes.

Q. Now, how long would the bacteria work on this citrate of lime before it stopped, assuming that it is under sea water all the time? A. The sea water is not changed?

2184 Q. The sea water is not changed except as the ship proceeds from one place to another. A. Till the food in the sea water is exhausted.

Q. And by the food you refer to the animal? A. The animal.

Q. The little animal food in the sea water? A. The little animal food in the sea water.

Q. How long would that take, in your opinion, if you have any information at all on it, with the cargo covered by sea water? A. It depends on the amount of water present.

2185

Q. And of course if new water came in through the hole in the vessel, and took the place of the old water, there would be more bacteria? A. Yes.

Q. Well, it is altogether a matter of speculation, isn't it? A. It is.

Q. Do you know of anybody who knows anything about this citrate of lime up in Halifax or how to treat it? A. I don't know.

Q. Do these bacteria require oxygen, that you have named, with the three interesting names, require oxygen for life? A. They are present in the air. 2186

Q. Do they require oxygen in order to keep alive? A. No oxygen at all.

Q. That's all.

Re-direct examination by Mr. Carpenter:

Q. What do they live on? A. From the oxygen in the citrate of lime.

Q. Now, I wanted to ask you two questions; the first was, is it possible to dry the wet citrate of lime on planks or boards on a floor? A. It would. 2187

Q. In that case it would be the air blowing over it that would dry it? A. I don't know; that depends on the facilities.

Q. I see. Now, then, after the sulphur-dioxide had been inserted in the casks, could they have been loaded on to another ship in Halifax and brought to New York for processing? A. Certainly could.

Q. And would the fermentation have gone on? A. The fermentation would have been stopped.

2188

Q. So if there were no facilities for drying in Halifax, it could have been brought to New York and processed here, could it? A. It could.

Q. That's all.

Recross examination by Mr. Sprague:

Q. Doctor, I believe you stated that the casks would have to be opened before the tube of sulphur-dioxide could be put in, in order to kill the bacteria. A. A hole could be bored in, too.

2189

Q. How would you do that when, as one of these witnesses testified, it appeared as hard as a piece of coal inside.

Mr. Carpenter: That's in October; this is the latter part of September.

A. I don't remember that. In Halifax?

Q. Well, how would you do it then, when it was like mud; can you drive that gas through mud? A. You can bore a hole in the cask and put the pipe through the hole.

2190

Q. And do I understand you to testify that you can drive that gas through the mud? A. Certainly.

Q. And kill the bacteria in the mud? A. You certainly could.

Q. You have not made a study of transportation of citrate of lime, have you? A. No, I have not.

Q. You would have to have special facilities to recondition any of this citrate of lime, wouldn't you? A. Yes.

Q. You certainly would for the drying? A. You need facilities for sulphur-dioxide and for

2191

floor space to dry it, air dry it. Perhaps that would not be necessary; you could recondition it simply and bring it to New York in that state.

Q. Now, you are testifying from the standpoint of an expert who has studied these things for yourself, aren't you? A. Yes.

Q. You don't know what the ordinary individual who meets with citrate of lime two or three times in his life knows about that, do you? A. I don't know.

Mr. Carpenter: Of course he cannot tell what other people know. 2192

Q. How many times has a cargo like this been reconditioned in New York? A. I cannot understand the question.

Q. How many times has a cargo of citrate of lime damaged by sea water been reconditioned in New York to your knowledge? A. How many times?

Q. Yes. A. You mean when the cargo arrived in New York?

Q. Yes, damaged citrate of lime by sea water; how many times have you known of its being reconditioned? A. I don't know anything. 2193

Q. You haven't heard of any such reconditioning as that? A. No, I haven't heard of it.

Q. You are giving just your theoretical knowledge of how it could be done, not as to how it—A. It has been done with calcium aliate.

Q. Not with citrate of lime? A. No.

Q. How much calcium aliate did you know of its being done to? A. I was told by a chemist from the Barrett Company who make calcium

2194 aliate that calcium aliate had come in and they reconditioned it in about three days.

Q. How much of it? A. I couldn't tell you that.

Q. Was that damaged by sea water? A. That was damaged by sea water.

Q. And this you simply learned from what one of your associates told you. That's all, doctor.

Re-direct examination by Mr. Carpenter:

Q. If you had been consulted about this while this cargo was at Halifax what would you have
2195 recommended that they do?

Mr. Sprague: I object to that, purely speculative.

The Court: I sustain the objection.

Q. Oh, that's all.

THOMAS H. NORTON, called and sworn in rebuttal for libellant, testified as follows:

2193 *Direct examination by Mr. Carpenter:*

Mr. Carpenter: This man is pretty deaf; I will have to shout at him.

Q. Your name is Thomas H. Norton? A. Thomas H. Norton.

Q. What is your profession? A. Chemist.

Q. How many years' experience—what experience have you had? A. Graduated with chemical training at Hamilton College, five years I studied in the universities at Heidelberg, Berlin

and Paris, taking the degree of Ph. D. at the first university; for five years I was manager of a chemical works near Paris; 17 years I was professor of chemistry in the University of Cincinnati, and head of the chemical department. Fourteen years I was connected with our State Department in the Consular service, charged largely with the investigation of chemical problems in Europe, travelling about and making reports on the chemical industries of various countries and publishing several volumes in that connection. During the war I was connected for three years with the Department of Commerce, charged with the development of various chemical industries which we had the opportunity to establish when we were cut off from German supplies. In this connection I had to make an exhaustive study of the citric acid industry and the calcium citrate for the purpose of establishing if possible a complete American industry so that we would no longer be dependent upon Europe. At the close of the war and for nearly three years I was connected with the Duponts in the establishment of chemical industries in Wilmington, Delaware. For the past two years and a half I have been consulting chemist and editor of the Chemical Color and Oil Record. 2197 2198 2199

Q. Have you made any special study of citrate of lime? A . I have taken up the technical and economical phases of the production, in connection with the project for the establishment of the citric acid industry in California, in which the citrate of lime forms the first product.

Q. Now, do you know what effect it would have upon citrate of lime to immerse it in sea water? A. In my opinion the natural effect is to bring about the necessary conditions of fer-

2200 mentation and decomposition, depending upon moisture, access to air, that is the oxygen of the air and a favorable temperature. The operation cannot come on unless there is moisture present, cannot come on unless there is oxygen.

Q. What operation? A. That is the decomposition of the salt, due to the presence of certain bacilli which are found in the product as it comes from the fermentation and preparation of the salt from the juices of lemons or other citrous fruits. The ordinary commercial citrate of lime is in a dry form and in that condition there is next to no deterioration because it is
2201 kept from water, although the moisture of the air in the course of months or years will produce a very marked deterioration, unless complete protection is assured from air.

Q. Do you know how citrate of lime is imported into this country? A. It is usually imported in casks after it has been thoroughly dried, usually, as I understand, in wooden casks, frequently, I believe, from Sicily, that are lined with papers to prevent the access of moisture to some extent from the air.

Q. How long after the citrate of lime was im-
2202 mersed in salt water would it be before bacteria would start to work? A. Why, I imagine the bacteria would begin to work at once; the number and the amount of bacteria present in citrate of lime is very small, after the operations of drying, etc., preparatory to shipping, but they would begin to work and they would begin to multiply; it would depend for their action on the oxygen in the air, which is dissolved in water, just as fishes live in the air, that live in water and after a certain period that supply

begins to lessen, their activity would diminish in proportion. 2203

Q. Now, would the bacteria increase or diminish with the furnishing of fresh sea water? A. By the contact with the first supply of water it would have a fresh supply of oxygen which is absolutely essential for the action of the bacteria on the salt.

Q. Now, on what do the bacteria feed when they are in the citrate of lime; what do they feed upon, what element? A. Why, they subsist on what would be called the citric acid, a constituent of citrate of lime; they bring about a decomposition of that, which is accompanied by 2204 an evolution of carbon dioxide or carbonic acid and which results to some extent in the formation of calcium carbonate as a fixed product.

Q. Now, another question. Is there any way of saving citrate of lime after it has been wet with sea water? A. Why, it is a comparatively simple matter as in the case of every other bacteriological operation; if it can be restored as promptly as possible to the condition in which it was before being brought in contact with the water, the operation would mean, in the case of citric acid, the diminution of the water and the 2205 drying, which is the last operation preparatory to the trip from Sicily or Spain.

Q. What I want to know is there any way of taking citrate of lime that has been immersed say in sea water and stopping the increase of bacteria, fumigating it or making it sterile? A. The first thing would be to get rid of the water which can be done by various mechanical methods, and completing it by the action of heat so as to remove the last traces, and under those

2206 conditions the bacteria would cease to function when the moisture was removed.

(Recess.)

(AFTERNOON SESSION.)

THOMAS H. NORTON resumes the stand.

Direct examination continued by Mr. Carpenter:

2207 Q. Doctor, is there a method known of stopping fermentation in wet citrate of lime by using sulphur dioxide? A. That is one of the means and probably the cheapest and most expeditious that can be used for destroying the bacteriological life and stopping the fermentation.

Q. Is that a well known process? A. Why, I don't know that I would say it is well known, but I would say it is one that would naturally present itself to the chemist if the problem was placed before him. It is probably the simplest and easiest method of checking fermentation by chemical means.

2208 Q. Now, how would the sulphur dioxide be inserted or be put in a cask of wet citrate of lime; what would be the best way of doing it? A. It would immediately be dissolved in the form of sulphurous acid and then act as this powerful agent on the bacteriological life which was present and destroy it.

Q. Could it be put in a cask of wet citrate of lime? A. That would be feasible. A tube could be run right into the center of the cask and if you had the sulphur dioxide in cylinders as we

find it in large cities, it could be sent into the 2209
center of the cask and spread throughout the mass in loose form and the gas is introduced and they are kept in contact with it for some little time.

Q. What time would you say? A. Well, I have carried out operations myself and I have made a rule of having in a perfectly tight room—of having the materials exposed for 15 or 20 hours.

Q. Now, could that sulphur dioxide gas be inserted into a cask of citrate of lime that was wet —the whole thing wet? A. Why, it is possible. I have never known of its being done in just that form, but it is possible as a method of carrying 2210
on the operation.

Q. You say the purpose is to kill the bacteria? A. To kill the bacteria and the simplest method of accomplishing that is to offer in the shortest possible time the greatest surface for its operation. I should be inclined to say that in a cask of citrate of lime where it was all packed together rather tightly in the damp form, that the gass would not spread rapidly and easily to every part, as would be the case if it were a dry material that was exposed; that is, it would take some little longer time for the destructive action to be 2211
carried on if it was done without emptying the cask.

Q. Now, another thing. Is citrate of lime very soluble? A. It is one of those substances that we call rather insoluble; it dissolves in warm water, one part in about 1700; it is a little more soluble in cold water; it is not a substance that we put in the list of soluble substances.

Q. Now, do you know what action sea water has on citrate of lime? A. I am totally unaware, either from practical experience or from anything

2212 that I have seen in literature upon that point. I have never come across any statements of the action of the sea water on it. I should say from general knowledge that the water itself would have no material action on the citrate of lime other than providing one of the necessary factors to favor bacteriological growth. The water itself would contain about 3% of soluble salts and those would have no action at all upon the citrate of lime.

Q. The salt would not? A. No.

Q. Now, would the bacterial growth be helped or retarded by changing the sea water and adding
2213 new sea water on several occasions? A. It certainly would be, because as bacterial growth proceeds the air which is the food of the bacteria is greatly exhausted, a new supply of sea water would necessarily bring with it an additional supply of air and oxygen which is one of the foods of the bacteria.

Q. Now, what effect would you say that the immersing of a quantity of citrate of lime in sea water, keeping it there for two or three weeks before it was treated, what effect would that have on the citrate of lime—I say two or three weeks—
2214 I mean by that two or three weeks before you started to fumigate it and stop the bacterial growth. A. Well, during that whole time the bacteria would have an opportunity to carry on their work; it would probably be a little more intense at the earlier part and then as the supply of oxygen or air in the water became less, it might be lessened, relatively lessened; it would depend to some extent upon whether the water was in a perfectly quiet condition or whether there was some little agitation there with regard to the exhaustion of the air. I have noticed

myself in connection with solutions of soluble citrates, that the decomposition results of bacterial growth were on the surface of the solution where it was in immediate contact with a large amount of air; there is where the fermentation started in; it was carried on very rapidly in contact with an abundant supply of air and all the necessary moisture. 2215

Q. Well, do you think that the immersion of citrate of lime in casks in salt water and then taking it out of water, letting the water drain out and then putting it back in water again and then again taking it out of the water, letting the water run off and then again putting it in the water—would that be more or less harmful than keeping it in water? A. That would certainly facilitate the action of the bacteria because during the period when it was removed from the water, in that time it would be in complete contact with the air; in taking it out from the water and then introducing it again, there would be a certain amount of agitation which would allow the absorption of more air and if it were introduced in an entirely fresh supply of sea water the action would begin essentially as it was first introduced, unless some slight protective means might be brought in through the formation at the first exposure of calcium carbonate. There is a possibility of that taking place, to what extent I couldn't say. 2216 2217

Q. Now, do you think it is entirely feasible to recover the citric acid after the citrate of lime has been immersed in salt water? A. Oh, it is perfectly feasible. You simply have to either destroy the bacteria by simple chemical means or remove the moisture that is absolutely essential

2218 for the bacterial growth which is done by mechanical means or by heat.

Q. What percentage of citrate of lime would you say would be lost through fermentation in the first three weeks after the immersion in sea water? A. I have no personal knowledge on that point and I have never encountered any definite statement in the chemical literature on it; I should say from familiarity with other citrates that—other soluble citrates, that in the course of three weeks anywhere from one up to four or five per cent. of the citric acid content might be affected.

2219 Q. Now, would the process of drying and fumigating wet citric acid be very expensive; is that an expensive procedure to fumigate with sulpho-dioxide? A. The drying can be carried on very rapidly by means of a centrifugal which as we have in our large laundry shops, etc., and in our chemical works. Rapid treatment with a centrifugal ought to remove, I should say, all but perhaps one per cent. of the water which was present. To entirely remove the last part, it should be put in a drying machine, in order to remove it completely. The treatment with the

2220 sulpho-dioxide is carried on very inexpensively by means of burning sulphur in a confined space which is more or less tightly closed against the air. That was the way that I have used myself in fumigation on a large scale, but in large cities it is frequently possible to have supplies of liquid sulpho-dioxide in cylinders such as we have carbon dioxide in cylinders. They could be emitted to a space containing the citrate of lime very rapidly and effectively.

Q. Is that expensive stuff, the sulpho-dioxide? A. Why, that is not very expensive. It is pre-

pared without much difficulty and easily concentrated by pressure. It is used very extensively in our breweries, etc., for refrigerating purposes until the ammonia process has supplanted it largely. 2221

Q. Is citrate of lime a well known material; do chemists know pretty generally what it is? A. Oh, it is well known all over in Europe and in America it is not a product which we find generally in commerce and for sale everywhere, because it has but practically one use and that is its conversion into citric acid. It is the raw material for the manufacture of citric acid, not a product which you would find for sale in every small town or even every city, as it is simply the raw material for a few large manufactories of citric acid. 2222

Q. And what is the citric acid used for? A. Citric acid has quite a variety of uses. There is quite a consumption in medicine in the preparation of several dozen pharmaceutical compounds, notably of the various alkaloids, and then there is a very large consumption in the manufacture of beverages as an acid constituent. A large amount of the citrates made, notably magnesium citrate, that we used in effervescing liquids. The chief purposes, chief uses, I should say, are in connection with the dyeing of textile fabrics. It is an acid which has very large uses in that connection. 2223

Q. Now, suppose there were a mixture of sea salt in the citrate of lime, after it had been dried out how would you get rid of the salt? A. You mean the salt from sea water?

Q. Yes. A. If the citrate of lime which has been exposed to the action of sea water is allowed to drain, and is then put into a centrifugal, a

2224 ton could be treated in a relatively few minutes; nearly all of the sea water would be mechanically removed. I would say roughly that perhaps one per cent. might be left in it. In order to remove that one per cent., if you had a hundred pounds of citrate of lime and had one per cent. sea water in it, you would have then 3/100 of a pound of salt in that mass of 100 pounds of citrate of lime. That is relatively insignificant when we consider that the commercial citrate of lime, as we purchase it from Sicily, etc., has several per cents of the various impurities, but this small amount
2225 of the salt which remains there can be very inexpensively removed by a simple washing treatment, either in the centrifugal washer where it can be poured in and be mechanically displaced, or it can be treated with water and passed through a filtering press. It would be a very simple operation to remove practically all but the slightest trace of sea water by a very rapid and inexpensive washing.

Cross examination by Mr. Sprague:

Q. Dr. Norton, I understood on your direct ex-
2226 amination that you stated that these bacilli were found in the raw product citrate of lime; was that correct? A. That is correct. Take, for example, in the case of the grape, the bacteria which a little later on, when opportunity is afforded gives the alcohol in the wine, are present in small amount in the juice of the grape. The same way in the juice of the fruit of the citrous plants, of which the lemons and grapefruit are an example; they seem to contain these bacteria just as the grape contains the bacteria of the alcohol fermentation in the operation of prepar-

ing the citrate of lime, although it is washed and dried to quite an extent, a certain amount of these bacteria seem to remain in the dry salt and spring into activity when favorable conditions are offered. 2227

Q. And by favorable conditions you mean the presence of oxygen? A. The presence of moisture, the presence of oxygen of the air and more or less the prevalent temperature. The nearer we get to the temperature at which the bacteria acts most easily, the more rapid the fermentation taking place, there being next to no fermentation down to below zero, and there being next to none at the boiling point of water, because the bacteria would be destroyed at the favorable point, I think about 40 degrees C.; where the bacteria seems to develop its activity is zero. 2228

Q. 40 degrees C. is about 100 F.? A. Well, that would be a little warmer temperature than you or I would care to have in the room at present; it might be up to about 150 degrees F.

Q. There have been instances, have there not, where citrate of lime has been left exposed to the air, and it has been found, upon tests, that all the citric acid or approximately all of it has escaped? A. That is a question of time; there is moisture in the air; the citrate of lime is exposed more or less freely to the air; if there were any heat in this room, for example, the operation would go on more rapidly; if it were enclosed tightly in an ordinary cask with limited admission of air, it would go on slowly, but unless it is hermetically enclosed in some air tight container, on account of the moisture which is invariably present in the air, a slight fermentation goes on; it may not be noticed for some weeks or 2229

2230 possibly months, depending on atmospheric conditions, but there is a fermentation going on and if this exposure is continued, say for a year or two, there would be a very serious deterioration and loss of the citric acid content.

Q. Well, now, this bacteria lives on the oxygen in the air, and on the oxygen in the water, doesn't it? A. Water—sea water—ordinary running water, always contains a certain amount of air, and the oxygen of that air is what is necessary for the growth of the bacteria as it is for a fish in water.

2231 Q. Well, now, is there more air in sea water than there is in the water of the Harbor of New York, for instance? A. Why, the water of the Harbor of New York is affected by the tides and every movement of the tides sends a large amount of sea water directly into the harbor and some ways up the Hudson—notice the presence of sea water up beyond Poughkeepsie—and there is such a constant movement there that I don't think the percentage of air which is present in the water of the harbor would materially differ from the percentage in the sea, except for the fact that the harbor water contains a considerable amount

2232 of sewage and that sewage is undergoing change from fermentation processes in which the oxygen is being consumed. We would assume naturally then that there would be a slight difference in the amount of air present in the harbor water on an average as compared with water in 20 miles outside of Sandy Hook.

Q. That is, there would be less oxygen on account of the sewage having consumed it? A. Less oxygen because sewage undergoes oxidation. One of the standard methods of avoiding trouble

from sewage is to expose it to the oxidation of the air. 2233

Q. As I understood your direct examination your study of citrate of lime has been largely along the technical and economical side? A. Technical, and I would say still more on economic features, how it could be successfully introduced into the country.

Q. You have never conducted any experiments to know the effect of sea water upon citrate of lime, have you personally? A. No, I have never conducted any experiments and I don't know of any of my acquaintances who ever have. I have never encountered any statements in the literature with regard to it. 2234

Q. Have you ever been connected with any factory or plant that reconditioned any citrate of lime that had been damaged with sea water? A. No, I have never had any connection with that sort; there are very few such in the country.

Q. Have you ever had anything to do with the reconditioning of any citrate of lime? A. No.

Q. Have you ever dried citrate of lime in a centrifugal machine? A. No, I have had no actual practical experience with the treatment of the compound, either in the preparation for the market or as a result of anything happening to it. 2235

Q. Then you have never treated any of it with sulpho-dioxide? A. No.

Q. You have treated other compounds perhaps? A. What I say in that connection is simply a statement of what I would naturally do as a chemist if such a condition were presented to me from my familiarity with the treatment of other products which require exceptional treatment.

Q. Then is it fair to say that if you, as a chemist, had a small amount of this stuff handed to

2236 you in a mud shape, that because of your knowledge as a chemist that's the way you would try to treat it? A. That is the way I would naturally treat it from my experience with other substances which are liable to deterioration.

Q. And you don't know whether there is any method—commercial method, for such treatment or not? A. No, I doubt whether there is any statement in the literature. I never happened to see an allusion to any accident happening to stocks of citrate of lime which would involve the treatment for the removal of the effects of sea water.

2237 Q. You never heard of any such damage, did you, before? A. I have never heard of anyone ever encountering it; I don't know whether such a situation has occurred before.

Q. So that your testimony as to the way in which this could be removed and reconditioned, is your theory rather than any question of practice? A. It is simply based upon a rather large experience in a good many chemicals, salvaging chemicals from the results of fire and water, and the statement of the method which I would instinctively, from general knowledge, apply to this

2238 special case.

Q. And as I understand that even in your theory of treating damaged citrate with sulphodioxide, you would spread the citrate out in layers and then either expose it to the sulphur dioxide by burning the sulphur or by liberating a certain amount of the liquid gas, is that correct? A. Yes, sir.

Q. You would do that rather than attempt to force any gas through any pipe into a cask? A. Well, that method might be used: I never hap-

pened to have had just that specific proposal laid before me. 2239

Q. Well, do you think you could force a gas through mud so that all the globules and atoms in the globules of mud would be impregnated with the gas? A. There would be no difficulty if you were making use of sulpho-dioxide in the compressed liquid form from a cylinder such as is provided for the bleaching trade and other industries because there would be such a pressure behind it as would easily force it away in every direction. The condition that obtains in the center of a cask of citrate is what we would hardly call mud; there is not that sticky viscous substance that we have with clay substances, etc.; citrate of lime consists of a mass of very fine small crystals; you would call it a sand and when you have a sand which has been soaked in water and holds a considerable amount of water, it would not require a great amount of power to force a gas into it; quite different from the use of the term "mud" as we apply it ordinarily, where the adjective "sticky" is associated with it. 2240

Q. But nevertheless there would be much more difficulty in getting it through? A. There would be a certain amount of resistance opposed, as I stated before. The operation would go on much more effectively and much more rapidly if the contents of a cask were emptied out into an open space so that a very large surface would be freely exposed to the action of the gas. 2241

Q. Now, with your work with the State Department during the war as I understand it, you were attempting to get the more general use of citric acid in this country, weren't you? A. Yes, it was a study as to how we could make use to the utmost extent of the by-products of the lemon

2242 orchards of California; the culls as we term them, can be used as they are used in Sicily, for example, as a source of citric acid and that has been started in California. It was the desire to make it more extensive and more exhaustive so that there need be no further dependance upon a foreign source, that I took up the matter. It would be a little difficult, though, at present, with the existing supply of lemons either to completely exclude foreign sources of the citrate.

Q. Well, at that time and in 1920 you found, did you not, that citrate of lime was not very
2243 widely known in this country as a compound, only known to a few large manufacturers? A. Yes, intimately known; there were a few manufacturers; they were the only consumers of it, practically, who purchased it on a large scale and then convert it immediately into citric acid.

Q. And there weren't more than half a dozen of them in the United States, were there, in 1920? A. No, and I doubt if there were more than that at the time that I took it up; there were in addition to these firms on the Atlantic Seaboard which had been for several years manufacuring citric acid on a large scale, there were
2244 three or four small undertakings in California, that started in to make the citrate of lime and one of them went so far as to convert it into citric acid; but they were relatively small compared with the large concerns in our immediate neighborhood who had been established for years in that occupation.

Q. And if one of those large concerns stated that the material, if it had been in sea water and was brought to New York, was a total loss, they would probably be more likely to know about it than anybody else, wouldn't they?

Objected to. 2245
Objection sustained.

A. They ought to have the practical experience.

Q. Never mind, doctor. Now, you said something about carbonate of lime being liberated at the time the sea water went upon the citrate of lime. Wouldn't the effect of that tend to protect the balance of the citrate of lime from further action? A. I cannot state from direct knowledge, but I think it is highly probably there might be more or less coating of the material upon which it was forming.

Q. And would that not tend to protect the ma- 2246
terial from further bacteriological action? A. That ought to, in case it takes place, ought to hinder to some extent the access of the air to the material.

Q. And protect the material, would it? A. Assuming that it was attached firmly to it. I can only give it as an assumption on my part, as something that I would expect might take place under those circumstances.

Q. How much of a charge in pounds would any of these centrifugal machines that you have experimented with take? A. Oh, that depends 2247
on the size; we have all sorts of centrifugals; some of these larger centrifugals we could easily put in four or five hundred pounds at once, and a few whirls of the apparatus and the water would be removed; they are constructed now on a large scale, I should say seven or eight hundred pounds.

Q. Are these centrifugal machines that you mention common ordinary machines which every person is likely to know about or have? A. They

2248 are now rather widely diffused, especially in connection with laundry operations; they permit of removal of a large amount of moisture present in the wash in a very short time, and relatively little expense; they are convenient for use in the city where there is not much opportunity for drying articles by exposure to the air.

Q. You couldn't use that form of machine, could you, for drying a chemical; you couldn't use a laundry machine for drying a chemical, could you? A. So simple, because they are now used in almost all chemical works where any operation of drying is required. You will find them
2249 present in nearly all the cities or towns; its development of recent years is a simple and easy method much less expensive than trying to drive off a large amount of water by the application of heat.

Q. Well, you didn't understand my question, perhaps. I asked whether you could dry out these chemicals with a centrifugal machine such as a laundry has? A. There would be no difficulty in doing it in any place. You simply introduce the substance, let the machine whirl around say a thousand revolutions a minute, and the
2250 water is removed.

Q. How long would it take to take 99% of water out of say 500 pounds that you put in at one time in a centrifugal machine? A. Oh, that ought to be done inside of four or five minutes.

Q. Have you experimented with them so that you know? A. I have had considerable experience in the use of centrifugals. I have introduced them myself in the factories which I had under my management in Paris and have tried the use of them on a large number of chemicals.

Q. Is there anything difficult in putting them 2251
into the machine? A. No; as a rule you simply put the material into a rough pack; these rough packs just simply put them into the machine and then let it whirl around and then take the packs out.

Q. Do you think that when you drive off the water, you would drive off the salt in the water at the same time? A. If you were to remove say 99% of the sea water which was present, we would remove 99% of the salt because the salt is all dissolved in the water; but if one per cent. were left behind and we removed all of the water 2252
in that by the application of heat, we would then have a small portion of salt remaining with the article which was being dried.

Q. There were very few people who would have a theoretical knowledge as to how to recondition this citrate of lime in that way that you have suggested, weren't there, in 1920, the knowledge that you have which you have stated here? A. I should say that that would be the natural suggestion to the mind of any fairly well trained chemist or analytical chemist; the use of the centrifugal has become so widespread of late years that every analytical chemist now has a 2253
little centrifugal, perhaps a foot in diameter in his laboratory for convenience. Twenty years ago that wasn't the case.

Q. So that would be restricted to the chemists practically? A. Yes, the use of the centrifugal has become so widely diffused now that it would suggest itself to the mind of the chemist automatically.

Q. I see. That's all.

LUDWIG SAARBUCK, called and sworn in rebut-
2254 tal for the libellant, testified as follows:

Direct examination by Mr. Carpenter:

Q. Dr. Saarbuck, what is your profession? A. I am consulting and analytical chemist.

Q. Did you make some tests with some citrate of lime in connection with sea water? A. I did.

Q. Whereabouts did you get your citrate of lime? A. The citrate of lime I used for my experiments I got from the chemical works of Pfizer & Company in Brooklyn.

Q. Now, then, have you got here a copy of
2255 your report? A. I think I have.

Q. I wish you would just give us what experiments you made with the citrate of lime, and tell us what per cent. of water you found in it and then——

The Court: Have you fixed the time?

Q. I will do that; when did you make these tests, doctor? A. I made these tests about from —the report is from May 5th and the citrate was in it for about eight weeks, therefore I will say
2256 that the tests started in March, 1921.

Q. And your report was dated May 5th?—— A. May 5th, 1921.

Q. Did you find that there was any percentage of water in the citrate of lime that you got from Pfizer? A. Yes, it contains about 6% of moisture as we received it.

Q. Now, then, just tell the Court what tests you made—by the way, that citrate of lime you got from Pfizer contained what percent of citric acid? A. 62.7 just as I received it.

Q. Was that a dry or wet basis? A. It was a wet basis. 2257

Q. On the dry basis, how much? A. 66.9% on dry basis.

Q. Now, then, did you mix any of it with sea water? A. I mixed some of it with sea water in the proportion of two parts of citrate of lime with one part of sea water, which gives 34% of water in the mixture.

Q. What did you find after leaving it there for a week; what did you find? A. After leaving it for a week I found that, calculated on the wet basis it would be about 3% less citric acid.

Q. And after two weeks? A. After two weeks 2258
is about the same. After three weeks there is about 5% less and after four weeks there is about 7% less.

Q. Did you make any test by putting citrate of lime in and out of the water? A. No; I didn't. Then later on I added a larger amount of sea water.

Q. Did you change the sea water? A. No, I didn't change the sea water.

Q. Did you make any attempt to imitate the conditions under which some of the citrate on the *Willdomino* was brought to New York? A. 2259
I made the attempt.

Mr. Sprague: I object to that unless he states what those conditions were. I don't know that he was familiar with them.

Mr. Carpenter: Of course, I will have him bring that out.

Q. What did you do, Doctor? A. For the second time after the reports with one part and two parts were finished, I added more water.

2260 When we mixed it, it was over 54% of water in the mixture.

Q. Then what happened when you did that? A. Then I examined it after two weeks and after three weeks and I found in the wet state the citric acid went down from 27.6 to 25.9 and 23.4%.

Q. Now, when you put in 54% of sea water with the citrate of lime, what was the percent of citric acid when you first mixed it? A. When I first mixed it, the citrate of lime was 66.9 on the dry basis.

2261 Q. Now, when you mixed that with 54% of water, after one week how much citric acid was there there? A. Then it came down to 56.3 on the dry basis.

Q. After two weeks? A. After two weeks and after three weeks to 52.1.

Q. Now, then, after that, what happened? A. Then after that time, then the whole mixture began to show moulds and real fermentation.

Q. What do you mean by real fermentation? A. That means that gas was generated.

Q. Now, did you keep watching the citric acid while this test was going on? A. Yes, I took

2262 samples from time to time.

Q. Now, what did they show with regard to the increase or diminution of citric acid; what happened? A. In the beginning the diminution was very slow, but after some time it came in the first mixture to one to ten per cent. of loss in citric acid, while the 50% of water came to 15% less of citric acid.

Q. In what time? A. In about three weeks.

Q. Where did you get the sea water? A. The sea water, I sent down to the aquarium.

Q. You got it out of the aquarium in New 2263
York? A. I got it out of the aquarium in New York which they furnished me as taken from the high sea.

Q. Did you discover from your investigation whether the decrease in the citric acid content was slower when you immersed it in the same water or was it more rapid or what was the relation between that test and putting it in a fresh supply of sea water? A. With the first supply it went very slowly, but afterwards went very rapidly.

Q. You mean when you put in a fresh supply 2264
of sea water? A. When I put in a fresh supply of water it was really moistening practically for some time.

Q. Well, the more sea water you add, the more rapid was the fermentation? A. The more rapid was the fermentation.

Cross examination by Mr. Sprague:

Q. What do you mean by "dry basis" when you say it was 66.9 on the dry basis? A. Citrate of lime contains 5% of moisture; that would mean it is 95% of real dry citrate of lime and 2265
5% water.

Q. I see; so the 66.9 is on the basis of 95%? A. 95.

Q. And the 62.7 is on the basis of 100%? A. Just as I received it, the commercial article.

Q. Now, I am not quite sure that I have this correct in my notes, but I understood you that you took a sample of citrate containing two parts, and mixed it with one part of sea water? A. Mixed it with one part of sea water.

Q. Is that right? A. Yes.

2266 Q. And did you test it then to find the citric acid contents at once? A. Yes.

Q. What was the citric acid content after you added the one part of sea water? A. It was on dry basis 63.9 and wet condition 42.2.

Q. That is immediately after putting the sea water on? A. Immediately after, just the mixture as we made it up.

Q. And on the dry it was then—— A. 63.9%.

Q. Now, how often did you make tests of this to determine the amount of citric acid content? A. Practically every week.

2267 Q. Well, at the end of the first week what did you find the percentage of citric acid content on the wet basis? A. 39.8.

Q. At the end of the second week, what did you find? A. It was 40.6.

Q. In other words, it had improved a little during that second week? A. Yes, it is very difficult to get an average mixture; it might have improved in citric.

Q. At the end of the third week? A. 37.4.

Q. At the end of the 4th week? A. 36.5.

Q Did you take tests after the fourth week? A. Yes; I then afterwards added more water.

2268 Q. When did you add the additional water; was it at the end of the fourth week? A. At the end of the fourth week.

Q. So you didn't add any at the end of the second week? A. No, I left it all in.

Q. It was the same water until the end of the fourth week? A. Yes, same.

Q. And you hadn't lifted the bugs out and put them in any other water or anything like that, but the same solution? A. Same solution.

Q. Now, just how did you manage that at the end of the fourth week; did you take the old water

out and put in new water? A. No, I added—just took the same mixture which was left and added one more part of sea water. 2269

Q. That is, instead of having one part of sea water you had two parts of sea water? A. Yes.

Q. And what was the result at the end of the fifth week? A. That it came down on the wet state just after mixing it was 27.6 per cent.

Q. That is after mixing? A. Yes.

Q. Well, that is due to the mixture, isn't it, adding the extra water? A. Yes.

Q. Well, after the end of the fifth week, what did you get? A. 25.90.

Q. At the end of the 6th week? A. 23.4. 2270

Q. At the end of the 7th week? A Well, then we stopped it, because the whole thing was muck and commencing to ferment.

Q. This was, the end of the 6th week was your last test? A. Yes.

Q. Well, then, for the first week after you had added the additional sea water you found the loss of 1.7; is that right? A. That is correct, yes.

Q. As compared with a loss of .9 the previous week; is that right? A. Yes—no, it is 1.1.

Q. 1.1 the previous week? A. No, that's right—point nine.

2271

Q. And as compared with, for instance, a loss of 3.2 at the end of the third week, third week over the second? A. Yes.

Q. Well, then, you actually found that there was a greater loss of content between the second and third weeks without any new water than there was in content after the end of the fifth week with the increase in the new water? A. Well, that is easily possible. It depends on the temperature. If it was a hot day it would prob-

2272 ably ferment much quicker than when it is cold weather.

Q. You had this all under the same temperature in your laboratory? A. Yes; but there may be hot days in May; that's possible.

Q. Well, the temperature in your laboratory does not differ materially from the temperature outside? A. It might sometimes.

Q. Even in May? A. Even in May, yes.

Q. Well, I don't see where you find that there is such a material increase on your own figures here; after you put in the additional water, seemingly it is no more increased than you had before
2273 with the old water. Well, let's get at it another way: When you put in one part of sea water with two parts of citrate, of course, you reduced the percentage of citrate by putting the water in, didn't you? A. Yes.

Q. And what had formerly been 62.7 citric acid content became 42.2? A. Yes, just by mixing.

Q. There hadn't been any loss of citric acid; you just had a larger volume, and when you took, at the end of the fifth week, this content which had 36.5 citric acid in and added another part of water, that simply increased the volume? A.
2274 Yes.

Q. And the decrease from 36.5 to 27.6 is just because of the mixture? A. Yes.

Q. There isn't any decerase in the citric acid content? A. No.

Q. Now, Doctor Saarbuck, in August, 1920, did you make a test for Scherer Brothers of citrate of lime? A. I did, yes.

Q. And tell me what you did? A. I received from Scherer Brothers various samples of citrate of lime. When I examined them just as I received them——

Q. In the wet condition? A. In the wet condition, I was asked just to find out how much citric acid it was. 2275

Q. And you found out now that that citrate of lime was from the *Willdomino*, this damaged cargo? A. Yes. I didn't know at that time where it came from. It was just sent to me in the regular way.

Q. And what percentage of citric acid did you find in your analysis at that time? Perhaps this will refresh your recollection. I don't know whether that is your memorandum or not. A. No, that's from Scherer Brothers. I have a copy of my reports about these. 2276

Mr. Sprague: I would like to have this marked for identification.

(Marked Claimant 1, Feb. 26, 1923.)

Q. Did you also make an analysis for Koehler, Kemp & Koehler, at the same time or a few days later? A. I don't know. I put that name on it, because it was mentioned in Mr. Scherer's letter.

Q. Now, the analysis shows various quantities, various percentages of real citric acid. Was that determined on the wet basis? A. On the wet basis. 2277

Q. Did you determine how much water there was? A. No, I was not asked to do so; just how much was in that bottle when I received it.

Q. Was it in the shape of mud when you received it? A. Some was more than mud; it was absolutely paste.

Q. Was there a considerable quantity of water in it or not? A. There was quite a considerable quantity of water.

2278 Q. You could easily have made a test showing the amount of water in those samples? A. I could.

Q. That is quite easily done? A. Yes.

Q. And you have no knowledge yourself as to how much water there was in it? A. No.

Q. But it was in the wet state? A. It was in the wet state.

Q. The percentage of citric acid in the dry state was a great deal more than stated here? A. Certainly.

Q. Can you state how much more it was? A. Well, I can figure it out, about on the basis that
2279 normal citrate has 6 per cent., and I can figure out how much would be in the dry state.

Q. Do you think there was 50 per cent. of water in this citrate? A. Yes, I believe there was.

Q. Fifty per cent. of water would have brought it up to pretty nearly 60 per cent.? A. As nearly as I could figure.

Q. Will you, after you leave the stand, make a little computation, please, and let us know how much that would be dry? A. Yes.

Re-direct examination by ***Mr. Carpenter***:

2280 Q. I notice from this report marked Claimant's 1 of today you analyzed four samples? A. Yes.

Q. Now, on sample No. 3 you have got here: 33.7 per cent., smells fermenting. A. Yes; it had a very, very disagreeable smell.

Q. Now, on sample No. 4 you had 38.7 per cent.; you have, "it smelled burnt." A. Yes.

Q. What do you mean by that? A. Well, it smelled as if there had been some fire here, and

I found out afterwards that some of those staves 2281
of the barrels are carbonized.

Q. Did you look the barrels over? A. No; I didn't find out, but I heard it afterwards that some of the barrels are inside carbonized.

Q. Did you ever see the barrels that this stuff comes over in? A. Yes, I have seen some.

Q. What kind of barrels are they? A. They are big barrels of about 4½ feet diameter and four feet length.

Q. How thick are the staves? A. About ⅝ inches.

Q. Now, did you find from your experimentation that the more sea water you used the greater 2282
was the loss of citric acid? A. Yes.

Mr. Carpenter: That is all.

Re-cross examination by Mr. Sprague:

Q. Mr. Saarbuck, this vessel, you know, was coming down from Halifax with this immense hole torn in her bow and water—of course, the vessel was coming down bow on, water pressing into this hole all the time. What would the effect of that be upon the citrate of lime inside? A. As
the bows are under water, then sea water would 2283
enter the bows and mix with the citrate of lime.

Q. And as the more sea water came in the more fermentation? A. The more fermentation.

Q. Do you know anything about the bacteriological action of sea water upon the citrate of lime? A. There is bacteriological fermentation; it is not all bacteriological; it is part fermentation.

Q. Isn't that a bacteriological action? A. Well, you might differentiate between the same.

2284 Q. This bacteria lives on oxygen, does it not, found in the water? A. Yes.

Q. And also in the air? A. In the air.

Q. And it is true, is it not, that in this citrate of lime there is to be found the bacillus before it is ever shipped? A. Yes, that is everywhere; in all articles there is some form of bacteria.

Q. You cannot kill all the bacteria? A. No.

Q. And when you expose it to oxygen, whether in the air or in the water, why then the bacteria begins to develop? A. Develop.

Q. And multiply? A. Yes.

Q. And that is what happened here? A. Yes.

2285 Q. Did you make any report other than Claimant's 1, of this date, to Scherer Brothers? A. Yes, I believe I made one before.

Q. This one afterwards—did you accompany this by any analysis or statement in writing as to what your analysis indicated? A. I don't know if I wrote a letter about it. That is an analysis giving the total organic acids, while in the first analysis I give only the citric acids.

Q. Did you write a letter about it? A. I could not recollect.

Q. You haven't looked at your correspondence?

2286 A. I have just that letter from Scherer where I was asked about the moisture.

Q. Will you examine your correspondence, please, and find out whether you wrote them any letter in regard to this? A. Yes. I don't recall that I wrote them any. I called up Scherer—I don't know.

Q. Did you advise Scherer that this was on the wet basis? A. Yes, I did so.

Q. You told them that? A. Yes, that letter shows it.

Q. But this letter is about six months after your analysis. A. Well, because I wanted to know—I don't know how I came—six months after that? 2287

Q. Well, this letter doesn't show. A. That shows that I asked for the amount of moisture; therefore, it must have been all on the wet basis, not on the dry basis.

Q. Your recollection is that you advised him that it was on the wet basis that you made this determination? A. Yes.

Mr. Sprague: That is all. 2288

THORWELD HANSEN, called and sworn on behalf of libellant, in rebuttal, testified as follows:

Direct examination by Mr. Carpenter:

Q. By whom are you employed? A. Baxter Wrecking Corporation.

Q. How long have you been a diver? A. Thirty-three years.

Q. Did you ever in the course of your diving go into the hold of a vessel where there was water and take out the cargo? A. Yes, sir. 2289

Q. What kinds of cargo have you removed? A. Most any kind.

Q. Ever remove large casks that had material in them? A. Yes, sir.

Q. How much of a job is that? A. Well, that is quite a job; most all kinds of work beneath the water is quite a job.

Q. Now, assuming that you had been given a job to remove 500 casks containing from 1,200 to

2290 1,700 pounds of a dried powder out of the hold of a vessel that was almost full of water, is that an entirely feasible job in the Port of New York? A. Oh, no, no.

Q. Feasible—I mean is it practical—could you do it? A. Why, yes, sir.

Q. Have you done that sort of thing before? A. Why, yes, sir; we have to do those things for to salvage the cargo and also for to stop up the vessel.

Q. Now, how would you get the casks out of the hold when they are under water? A. Why, casks, we generally use what we call barrel hooks,
2291 and if the cask is poor, then we have to use chain slings.

Q. And put the chain slings around the cask? A. Yes.

Q. And haul them out with a winch? A. Yes, sir.

Q. Can you give us any idea how long it would take you to haul 500 casks about four and a half feet in diameter and about four feet high weighing 1,700 pounds apiece dry, out of the hold of a steamship.

2292 Mr. Sprague: I object unless he states the conditions a little more clearly.

Q. Water eighteen feet deep in the hold of the vessel. A. That wouldn't make much difference, but to handle a cask like those would be about 24 or 25 in eight hours.

Q. Twenty-four or twenty-five casks in eight hours? A. Yes.

Q. Now, in your diving experience, do divers frequently work three eight-hour shifts a day,

24 hours a day, not the same diver, but by changing divers? A. Well, yes sir. 2293

Q. What was the charge of a diver a day in 1920, diver and equipment? A. Well, about $50 for eight hours.

Q. That is for one diver and equipment? I am speaking now of 1920? A. In 1920 about between $45 and $50.

Q. Between $45 and $50 for an eight-hour day? A. Yes.

Mr. Carpenter: That's all.

Cross examination by Mr. Sprague: 2294

Q. Mr. Hansen, will you state some of the cargoes of casks that you unloaded prior to August, 1920, in eighteen feet of water? A. Why, I have been handling cement clay wet from 2,600 to 3,000 pound and liquid, different kinds.

Q. Name some of the ships that you have done that on. A. Why, the last steamship I was on, while she didn't have any casks into her, but it would go from the first one, about twenty-odd years ago, the White Star ship *Teutonic*, sunk alongside Christopher Street Pier.

Q. What did you take off from her? A. We 2295
cleared the holds so we could get the suction pump into her.

Q. You didn't take all the cargo off? A. We had to take all the cargo off so we won't have anything around the——

Q. You took just enough off so you could just put the pipe in? A. No, we took enough out so we would not interfere with her pumps, anything that come in contact with them.

2296 Q. You took it out so that you could pump her out? A. Yes, sir; we took it out so that we could clear everything so we could get the water out.

Q. Of course, cement in under water that way, that is entirely spoiled? A. Yes, sir.

Q. And this cargo that you took out was all spoiled? A. Well, most of the cargo that sink like that they always want to have a return from the underwriters.

Q. Well, now, what other ship did you unload that way? What ones have you been in the
2297 last five years prior to August, 1920? A. With casks?

Q. Yes. A. Well, now I couldn't—well, we had a barge, we didn't have a steamship, but we had a barge with clay over to Pier 35.

Q. That wasn't in casks, was it, clay? Was the clay in casks? A. Yes, sir.

Q. Well, that barge was sunk, wasn't it, on the bottom of the river? A. Yes, sir.

Q. And you took the clay out so you could raise the barge? A. Yes, sir.

Q. I am asking for ships where you discharged the cargo in casks for the purpose of saving the
2298 cargo, in the last five years. A. That is what I am doing all the time, every day. I just come from one now where I been saving cargo and trying to save the boats.

Q. What one is it now? A. I am working on a coal barge down in South Amboy.

Q. The coal barge is sunk? A. Yes, sir.

Q. And you are taking the coal out so you can raise the barge? A. Yes, sir.

Q. Are you manager of the Baxter Wrecking Corporation? A. I am the superintendent.

Q.How many divers do you have? A. We have four. 2299

Q. Four divers? A. Yes, sir.

Q. Do I understand you to say that one of those could do that work alone in the hold of the ship? A. Yes, sir.

Q. Have you done it yourself? A. Yes, sir.

Q. You understand that they had to work through the hatch? A. Yes.

Q. A hatch about eighteen feet square? A. Yes.

Q. And that the barrels had to be brought in from the wings of the ship? A. Yes.

Q. Brought in in the square of the hatch before they were raised? A. Yes, sir. 2300

Q. And that could all be done? A. Yes, sir.

Q. Have you got enough divers to work them three shifts a day? A. Well, we have four divers without including me.

Q. Well, do you ever work three shifts a day? A. Well, if we have occasion for to do it.

Q. Have you ever had that occasion? A. We have had; yes, sir.

Q. How long can a diver work under water; can he work under water for eight hours? A. No, no; he would have to come up. The longest I have been under water without coming up is five hours. 2301

Q. Is that an ordinary time, or was that an extraordinary event? A. Oh, I don't know about that.

Q. What is the ordinary time for the diver to remain under water? A. The most that is done is about two hours and come up and have a little smoke.

Q. How many ships have you discharged from under the water where the ships themselves were

2302 not sunk? A. Well, now, I haven't had very many of them.

Q. Your main work has been bringing up the cargo from sunken vessels, hasn't it? A. Yes, from underneath the water.

Q. And while the vessel was on the bottom? A. On the bottom; well, we have had them, but we have had water in them, too.

Q. Have you ever been called in to a ship where the ship had been in collision and a hole made in her bow, so that the water would come into the bow with the ship still on the water? A. Yes, sir.

2303 Q. To take out cargo? A. Yes, sir.

Q. Where? A. We had one of the Danish Line came up here leaking; had her hold full of water and couldn't get the pumps on; we had to go down and clear away the cargo.

Q. You couldn't get the pumps in? A. No.

Q. You cleared away the cargo in order to get the pumps in? A. Yes.

Q. You didn't clear any more cargo than was needed to get the pumps in? A. No, not in the case.

Q. Whereabouts have you taken all the cargo

2304 out? A. When a ship is sunk mostly always you take the cargo out.

Q. When a ship is sunk; but when it isn't sunk. A. Well, it all depends what the circumstances is. If the ship is damaged and you want to get to the damaged part you have to get the cargo out of the way, have to take the cargo out before you can patch it up.

Q. That is, if you are patching from the inside? A. Well, you have to patch on both sides, both inside and outside.

Q. I mean without putting it in drydock? A. Yes. 2305

Q. And your work in taking cargo out from under water when the ship has been on top of the water and not sunk has been for the purpose of repairing the ship? A. Yes, sir.

Mr. Sprague: That is all.

Re-direct examination by Mr. Carpenter:

Q. Is it easier to take the cargo out when the ship is entirely sunk than when she is only partly sunk and one hold full of water? A. No, sir; don't make any particle of difference. 2306

Q. Which is easier? A. Well, it would be easier if the ship is afloat itself; it would be cheaper if the ship was afloat herself, by using her own winches.

Q. Then after you got a cask out of the water you could put it right on one of the decks? A. Yes.

Re-cross examination by Mr. Sprague:

Q. Did you ever hear of a cargo in a ship that was going to drydock for the purpose of repair, being discharged by divers? A. Why, yes. 2307

Q. What case? A. Why, there is very few drydocks will take them on the dock with the cargo into them.

Q. That is with the full cargo; they often have a ship on drydock with one hold full, do they not? A. Part of the cargo, yes.

Q. Well, have you ever known a case where divers have been used to discharge cargo on a ship that isn't sunk, any compartment, that is,

2308 full of water, where the ship is going to drydock for repairs? A. Why, this Danish ship, she had to go to the drydock after her cargo was out of the water, for to get fixed up.

Q. That's the one where you took out just enough so they could put the pumps down? A. Get the pumps in.

Q. So you could handle the water? A. Yes.

Q. You didn't take the rest of the cargo out? A. No. Her damage was so small that the pump would take care of it.

Q. Would keep the water from raising any further, is that right? A. Yes.

2309 Q. Suppose the whole front of the ship is carried away, plates buckled back, way back to the bulkhead between the forepeak and No. 1 hold, so that water just streams in there, and you cannot take care of it with a pump; you wouldn't go down and take that out by diver if she was going to drydock, would you?

Mr. Carpenter: I object to that; there is no evidence the pumps wouldn't take care of the water in that hold.

The Court: Permitted.

2310 A. Salvage companies always take the cargo out before they go to the drydock.

Q. Salvage companies do, as salvage? A. Yes, sir.

Mr. Carpenter: Oh, no, now, I object to that.

Q. Did you ever discharge a vessel like that in that condition I have named for the sole purpose of getting the cargo out, not for the purpose

of getting the pumps in, or for the purpose of getting the ship free, so she could be repaired, but for the purpose of getting the cargo out? A. Yes, we had—— 2311

Q. What was your answer? A. I said yes. You have to take the cargo out.

Q. Well, now, what ship was it that you did that? A. Well, there are so many ships inside thirty-three years, what I have been doing the diving.

Q. Well, I know, but you know the names of them. A. I would have to go through all my book. I have a book of the diving I have done and I carry one for each, so I would have to go all through those books. 2312

Q. You cannot name any one of them now? A. No, I couldn't remember one just at present.

Mr. Sprague: That is all.

ALFRED E. JORDAN, called and sworn in rebuttal on behalf of the libellant, testified as follows:

Direct examination by Mr. Carpenter: 2313

Q. What is your business or profession, Mr. Jordan? A. I am a consulting engineer and marine surveyor.

Q. Did you go aboard the steamship *Willdomino,* when she came here from Halifax with a hole in her bow? A. No, sir.

Q. You didn't see her at that time at all? A. No, sir.

Q. Do you know what the conditions were in

2314 New York Harbor in August, 1920, as far as drydocks were concerned? A. Generally, yes, sir.

Q. Were there plenty of drydocks then or scarce? A. There were plenty of drydocks, same as there is now, but they were very busy.

Q. Very busy at that time? A. Yes, sir.

Q. How long did they continue busy commencing, say, with the middle of July? A. Well, the work slackened up about the beginning of 1921.

Q. Now, then, is there anything difficult or dangerous about discharging a vessel when she is in drydock? A. No, sir.

2315 Q. Do you know the steamship *Willdomino?* A. No, sir.

Q. Know how large a boat she is? A. No, sir.

Q. Between five and six thousand tons. A. She is the usual type of vessel.

Mr. Sprague: 8,800 tons deadweight.

Q. Now, assuming that a vessel of that size, 8,800 tons, steel construction, had her forepeak filled with water because of a hole in her bow, and that damage went through the bulkhead into No. 1 hold and that filled up with water in the course of a half hour and contained a cargo

2316 loaded in that hold consisting of 500 casks of chemical known as citrate of lime, weighing between 1,200 and 1,700 pounds apiece, and that they absorbed water in the casks, and the vessel was first taken from Canso, near where she stranded, to Halifax, and then brought to New York; in what ways would you say those casks could have been taken out of the hold? A. They could have been taken out of the hold either by divers working or by pumping the hold down.

Q. By divers working or by—— A. In under the water to sling the casks or by pumping the water down so that men could get down there to work. 2317

Q. Now, assuming that hull was punctured in No. 1 hold, and the water ran in sufficiently to fill the hold up to the water line in half an hour from the time she struck, would you say you could keep the water down with pumps sufficiently to discharge the cargo? A. I would not do so in a case like that, because it would take too many pumps. I have frequently, with good-sized holes in the ships, used two and three pumps and discharged cargo out of the No. 1 hold of vessels. 2318

Q. Now, what other way is there? You say take it out with divers. Is that a frequently used means of taking cargo out of a hold full of water? A. No, it is not frequently used. It is used whenever it is necessary. We have had quite a number of cases where divers have discharged cargoes.

Q. Now, is there any other way of fixing the hold full of water up to the water line so that the cargo can be taken out? A. By divers underneath and endeavoring to plug her up, put your pumps inside and stop as much water as possible, and allow the pumps to pump her out. 2319

Q. Now, is that method frequently used? A. Quite frequently in case of damaged ships.

Q. The idea is to put a patch on the outside of the hull, plug her up, and then pump the water out of the hold? A. Yes.

Q. And then discharge the cargo. Is that an expensive procedure? A. Depends entirely upon the size of it; all salvage work is expensive.

Q. Now, do you know of any method of using compressed air in a hold that is full of water?

2320 A. No, you cannot use compressed air in an open hold.

Q. Suppose you plug up the hold and then use compressed air to force the water out? A. You would have to make your deck tight before you could use compressed air in an open hold.

Q. Now, assuming that a cargo of citrate of lime, which was of the value of approximately $200,000, was in the hold of a vessel which was filled with water up to the water line, the cargo consisting of 500 casks of approximately 1,800 pounds, when they were loaded, the casks having staves of an inch thick, chestnut wood; would
2321 you think there would be any feasible, practical way of taking out that cargo, assuming that it was not a cargo that would perish when it was first wet?

Mr. Sprague: I object to that latter assumption, in view of the testimony.

The Court: I will permit it.

Q. And assuming also that the vessel had not sunk when she struck, that they were able to get her into harbor? A. I think that in case of damaged cargo of this sort, my experience has
2322 been that the interests of all concerned get together and decide just what should be done with that cargo. I have personally discharged the whole of general cargoes out of the No. 1 hold and had the representative of every commodity that was in that cargo to examine as it came out of the hold. The discharging of cargo from under the water is done in different ways. Sometimes we have employed divers, but usually we have made the bottom of the ship as tight as possible and pumped the hold out, which

enables us to discharge that cargo with men in 2323
hip boots. Sometimes in the West Indies, we discharged it with men almost naked. Each case has to be dealt with on its own merits, and it is necessary for the people——

Q. Is there anything unusual about taking a damaged cargo out of a hold full of water? A. Well, we always have to do it when we come up against those circumstances.

Q. That is not an unusual circumstance either, is it? A. I have had a number of them myself.

Q. Your own experience? A. My own experience.

Q. And they have been unloaded in various 2324
ways? A. Yes, sir.

Q. Do you think it good shipping practice to leave a cargo in the hold of a vessel for a period of nearly two months, six weeks after she is injured, put her on drydock without taking off the cargo and put her in the water and finally put her on drydock to be repaired before taking out the cargo? A. Well, if it was considered inadvisable to take it out while the vessel was in the water, it is a perfectly easy thing to take it out the first time she was in drydock, put it in the 'tweendecks or on deck and then when she 2325
goes off the dock to get tenders, or whatever you want, to take it from the deck.

Q. Do you think there would be any likelihood of her tumbling over in the drydock or her weight being shifted by taking her cargo out of the hold and putting it on the 'tweendecks? Any risk to the ship in doing that? A. For how much cargo, 500 tons?

Q. 500 casks of a ton apiece? A. No, sir; they could be easily distributed so that it should not have any effect on the vessel's stability.

2326 Q. Have you known of cargo being taken out of vessels in drydock and placed on the 'tween-deck? A. I have done it myself.

Q. In the port of New York? A. No, sir.

Q. Wouldn't matter where it was done as long as—— A. It is very seldom we have disasters at home.

Cross examination by Mr. Sprague:

Q. Captain Jordan, if you had had divers go down and examine this damage, as was done in this case, and they reported that it was so extensive that it couldn't be repaired by them or from the outside, then I assume that you would feel you could not pump her out?

2327

Mr. Carpenter: I object to that because the divers' report is not in evidence.

Mr. Sprague: The divers' report is in evidence.

Mr. Carpenter: I think you should submit it to Mr. Jordan first, so that he can tell what is in the report.

Mr. Sprague: I withdraw that question.

2328 Q. It appears in this case that when this vessel went into Halifax the Lloyd's agent employed a diver who went down and examined the vessel and reported, according to the testimony, that the repairs could not be made externally, that Lloyds' surveyor then attempted to get a drydock and found that all drydocks were in use for three or four weeks, and therefore sent her on to New York with the cargo still covered with water in lower No. 1 hold, but with 400 tons of sand ballast put on the stern to bring her

head up a little. Now, assuming such report and 2329
such action by Lloyds' surveyor, you would not anticipate that she could be plugged and pumped out, would you? A. Certainly I should. I have had an almost exactly similar case on the steamship *Cheltonian,* which ran on the rocks in Newfoundland. She was put ashore with her nose on the shore, so as to prevent her from sinking altogether. The hold was loaded with all kinds of miscellaneous cargoes, the lower hold being full of grain. We put two ten-inch pumps in that hold and kept on removing cargo until we got down to the bottom. We took every bit of
that cargo out with men working in the water 2330
and put the divers outside to plug up as much as possible, and then we plugged her inside as well as out, about fifteen feet wide, the damage from the forward end of the ship, and the whole of that cargo was discharged in Sidney, Cape Breton, and the vessel taken around to Halifax and put in drydock.

Q. Was that all in No. 1 hold? A. We discharged every bit of the cargo out of No. 1 hold.

Q. As I understand, you ran her nose on the mud? A. We ran her nose on the mud.

Q. And then when the tide went down she was 2331
dry and you took it out that way? A. No, the water never went down below the told of the hold unless the pumps were going. As soon as ever one pump was stopped the water gained on us, but two ten-inch pumps were sufficient until the divers had had an opportunity to plug her up outside so our pumps would hold her.

Q. That was for the purpose of getting the ship forward to Halifax? A. The purpose of taking the cargo out was that it should not get

2332 any further damaged. We notified every consignee of that cargo, we had automobile tires, sausage skins, provisions, grain, all kinds of general cargo; all of the shippers of that cargo were notified, and they sent their representatives down to recondition that cargo on the spot so that no further damage should happen to it.

Q. Well, now, in the present case, this citrate of lime had been under water three days before it reached Halifax. Have you had any experience with damaged citrate of lime? A. No, sir; none at all.

2333 Q. What would you have stated if the matter came to your attention as to whether or not that citrate of lime was completely damaged? A. I should not——

Q. By three days under water? A. I should not have said anything at all about it; I should have got somebody that knew something of it.

Q. Yes, and if the chemists who knew something of it evidently assumed the analysis to be on a dry basis when it was a wet basis, and said there was only 34 per cent. wet, what effect would that have upon it?

2334 Objected to.

A. I haven't the slightest idea. I don't know anything about it.

Q. Now, did you ever discharge any cargo from the hold of the vessel directly into the drydock? A. No, sir; I never discharged into the drydock at all. I have discharged cargo in a drydock, but I have distributed it over the vessel, and one case I had in Newfoundland, we had wool and bales of fine skins that had been wet, the

whole of the forepart of the ship was taken off 2335
from the stem back into the No. 1 hold for a depth of about fourteen feet, and a length of about thirty-five feet.

Q. You mean by that, don't you, that you did not discharge from the ship, but took out of No. 1 hold, and put her on other parts of the ship? A. Put her on other parts of the ship and dried it and took as much care as was possible of that cargo and eventually put it back in its place and took it on to its destination.

Q. But you would not do that if you understood, and all parties concerned understood that the cargo was a total loss, would you? 2336

Mr. Carpenter: I object to that. Now, if they want to assume a fact that is not the true fact, they ought not to base that supposition of theirs without any knowledge on their part. They ought not to put that to a witness who has not been called for the purpose of proving what he would do with cargo if he didn't know anything about it.

Mr. Sprague: We have letters from these libellants, your Honor, dated the 2nd of September, before she ever went into drydock, stating that she was a total loss.

Mr. Carpenter: When did she go into drydock—the 23rd of August.

Mr. Sprague: She entered the drydock on the 17th of September; she went on the drydock, that is true, for the survey, on the 26th of August.

The Court: Read the question.

(Question repeated.)

2338 Mr. Sprague: There is another point, that is, that the representative of Pfizer & Company said that when she was at 131st Street, that the whole thing was a total loss.

The Court: Permit the question.

A. The answer to your last question was that I myself had been reconditioning cargo out of a damaged ship in drydock, if anybody told me that this cargo was worthless I should not attempt to recondition it.

2339 Q. Assuming that in the case of the vessel that you had at Newfoundland, I understand you ran her nose in the mud, took some of the cargo off and then got her down to Halifax? If you could not have gotten the drydock at Halifax, but Lloyds were willing to allow you to shore up the bulkhead between No. 1 and 2, and send the vessel down to New York for drydocking, would you have beached her? A. As it happens I represented Lloyds myself at the time. I was surveyor for the underwriters, and I was doing as I saw fit, not asking somebody else's opinion.

2340 Q. Then you were representing Lloyds at the time? A. I was representing Lloyds' underwriters.

Q. And the Lloyds man usually decides what is proper to be done, doesn't he? A. The surveyors for the different interests decide what is proper to be done. We very seldom decide anything alone.

Q. Well, when all the parties together join as they did in Halifax, in recommending that the vessel be brought down to New York without

any dissent, as it is apparent from the testi- 2341
mony, that is sufficient reason for bringing the vessel on to New York, isn't it?

Mr. Carpenter: I object, because there was no representative of either Pfizer or the Citro Chemical, and no evidence that they were notified.

The Court: Reframe the question.

Q. Where, Mr. Jordan, it appears that the representatives of the London Salvage Association, of Lloyds and the Port Warden of Halifax, who, 2342
under the authority of the Canadian Government takes charge of damaged cargo, when they come into port, joined in recommendation that the vessel go forward to New York, that is sufficient reason for the master bringing her forward, is it not? A. Quite sufficient.

Mr. Sprague: That is all.

Re-direct examination by Mr. Carpenter:

Q. If the recommendation was that the vessel go to New York and discharge her cargo and 2343
go into drydock, what would you think the duty of the vessel was upon arrival in New York? A. Discharge the cargo.

Q. Before or after the repairs were made? A. Before.

Q. Do you think it would make any difference what the cargo was in No. 1 hold if its nature were not exactly known, what do you think the first duty of the ship should be if water had got in the hold on the cargo?

2344 Mr. Sprague: I object as calling for a conclusion, and a question of law which the Court must answer.

The Court: Permitted.

A. Well, I don't propose to know the duties of a shipowner. As a surveyor, I would advise that all the interests be notified and a meeting held to decide what should be done with the different damaged cargoes. I have had cases myself where a large number of various articles have composed the cargoes and all the interests have been represented.

2345 Q. Who notified the various interests to send their representatives in those cases? A. It is done differently in different cases where the vessel is outward bound, and, we will say, belonging to foreign owners; the agents on this side advise the underwriters and the shippers of the cargo, and they send their representatives at their own pleasure. If they don't want to send them they don't have to, but they are particular to have them notified.

Q. How about an incoming steamship? A. Usually an incoming steamship, the consignees

2346 are at this end, and it is easy enough to advise them direct.

Re-cross examination by Mr. Sprague:

Q. Of course, the question as to taking cargo out of lower No. 1 hold and distributing it to the rest of the ship would depend somewhat upon the design of the ship, would it not, and the bridge space? A. No, sir; it wouldn't depend so much on the design of the ship as the amount

of cargo which you had there and the amount of space left at your disposal. 2317

Q. Assume that the bridge space cuts off the after part of ship entirely and you have, as here, over 550 tons of wet material and not sufficient in the 'tween decks forward. That would have some effect on it, wouldn't it? A. You have a great deal more than sufficient space for a cargo in the lower No. 1 hold; abaft that, you have the No. 2 hold, which is usually about 50 per cent. larger than the No. 1 hold, and you also have the upper 'tween decks in the No. 1 hold, the 'tween decks in the No. 2 hold and the deck of the ship. 2318

Q. It all depends on the space available, doesn't it? A. If the rest of the ship is empty you have more than sufficient space available with your No. 2 hold, your No. 1 'tween deck and the deck of the ship.

Q. That depends on the ship, doesn't it, and the design of the spaces available? A. No, sir; not as long as the ship is of the usual cargo vessel design.

Q. Now, assuming that the consignees of the damaged cargo actually sent surveyors on board the vessel, two days after her arrival, and then learned that the cargo was under water, you would not testify, would you, that there was any necessity of any further notice? A. There was no necessity of any other notice but one. 2319

Q. If they know that is enough, isn't it? A. If they are notified, they are notified.

Q. If they know without notification, there is no necessity for a notice, is there? A. Well, I shouldn't think so.

2350 The Court: What is the use of having the witness answer that?

Mr. Sprague: I will withdraw it, your Honor.

The Court: Maybe you will admit it yourself.

Mr. Sprague: That is all.

JAMES MCNAUGHT, called and sworn in rebuttal in behalf of the libellant, testified as follows:

Direct examination by Mr. Carpenter:

2351 Q. Mr. McNaught, what is your business? A. Consulting engineer.

Q. How many years have you been in the business?

Mr. Sprague: We admit his qualifications, your Honor.

Q. Well, how many years have you been a consulting engineer? A. I have been in the shipping business forty-three years.

Q. Did you know the steamship *Willdomino?*

2352 A. I do.

Q. Did you examine her when she came to New York in August, 1920? A. No, sir.

Q. Do you know her construction? A. Yes, sir.

Q. Did you ever see her when she was on drydock that year? A. No, sir.

Q. September or October, 1920? A. No, sir.

Q. Now, do you know whether it is a possible and feasible matter in case of necessity to pull a cargo out of a hold when the vessel is on dry-

dock and store it on the decks? A. It is perfectly feasible and perfectly possible. 2353

Q. Any reason why that could not have been done on the *Willdomino?* A. No reason.

Q. Now, then, assuming that the *Willdomnio* struck a rock or submerged reef and the damage was to her bow, forepeak filled with water, enough water coming into the No. 1 hold to fill the hold within about twenty minutes, the No. 1 hold containing 500 large casks, approximately four and a half feet in diameter, and four or five feet high, and then being filled up with cork wood; assuming that those casks contained citrate of lime, which is not very soluble in water, do you 2354 think it was feasible and practicable to unload that cargo before the final repairs were finally made six weeks or so after the sinking? A. If I had been in charge of the damage, the disaster, I certainly would have made an effort to have recovered the cargo and temporarily repaired the damage only as it affected No. 1 hold in order to bring the vessel to her port of destination.

Q. Well, now, what practicable method could have been employed to take that cargo out of No. 1 hold, the cargo of citrate of lime, 500 cases? 2355 A. The logical method would have been to have tested the inflow of water with pumps and if you could have overcome the influx of water by one or two pumps then you could have discharged her cargo, completing your suction lines down to the bottom of the hold as your cargo was recovered.

Q. Is there any other way of removing cargo from a hold that has water in it, than that one you have just mentioned? A. No other way.

2356 Q. Do you ever know of divers being used to take cargo out of a hold that is partly full of water? A. Oh, with divers, yes.

Q. Well, do you know of cases where that has been done? A. Frequently.

Q. What sort of cargo have you known removed by divers? A. I have had one case of a Barber line steamer; she went ashore; her cargo was taken out of No. 1 hold, and temporary repairs effected before she came to New York.

Q. What kind of cargo was that? A. General cargo.

2357 Q. Now, assuming the *Willdomino* went ashore off Cape Canso, Cape Breton, and then reached Halifax two or three days later, lay in Halifax several days and was then brought to New York, —towed to New York, where cargo was removed from all the other holds except the damaged hold, and then she was put on drydock and then put back in the water again, and finally, the cargo not taken from No. 1 hold, until after final repairs were completed; in your judgment, was that good or bad shipping practice?

Mr. Sprague: I object to that on the
2358 ground it is asking for a conclusion which it is for the Court to find.

Mr. Carpenter: I withdraw that question; you are probably right.

Q. Do you know anything about the facilities in Halifax Harbor? A. I do.

Q. Do you know what they were in July and August, 1920? A. I was there.

Q. You were there? A. About that time.

Q. What were the pier conditions in Halifax in July and August, 1920, were there plenty of

them or not? A. I am afraid that I cannot answer that question definitely. My impression is that facilities could be obtained? 2359

Mr. Sprague: For what?

Q. For what? A. For discharging cargo on the piers.

Q. As much cargo as 500 casks four and one-half feet in diameter and about four or five feet high? A. Yes.

Q. Would that take much pier space or not? A. No, sir; the probabilities are that they would be stored ashore, landed on the pier and taken from the pier immediately. About that time one of the piers collapsed due to weight, and to avoid that I suppose they would take them ashore immediately. 2360

Q. Now, do you know what the damage was to the *Willdomino's* hull? A. I have seen the specifications covering the damage.

Q. Now, then, I would like you to tell us whether or not it was entirely practicable to make temporary repairs over that damage and pump the water, and take the cargo out after the temporary repairs were made? A. My effort would have been to have stopped the holes in it. No. 1 hold, the forepeak was very badly damaged. The damage to No. 1 hold itself was not considerable, only extending to two floors in the forward end of the hold, and it is my impression that this could readily have been stopped and the No. 1 hold pumped out and the cargo recovered. 2361

Q. And would that have taken much time to have plugged that No. 1 hold and have taken out the cargo? A. Judging from the specifications I should say no.

2362 Q. Would it have involved much expense? A. No, because the repairs would be largely of a temporary nature.

Q. And what would you say the expense of such repairs would amount to at the outside figure? A. If the vessel were afloat and a diver was asked to plug the holes with timbers, I should say the expenses would not exceed $700.

Q. $700? A. Yes, sir.

Q. You think that is an outside figure? A. I should say so.

Q. Now, suppose the vessel were in drydock and you made temporary repairs to stop the
2363 inflow of water into No. 1 hold so that you could remove the cargo, what would be the fair allowance for those repairs? A. It would be much less because we would not require the services of a diver.

Q. How long would it take on drydock to make such temporary repairs, plug No. 1 hold for the purpose of removing the cargo? A. I would suggest that if temporary repairs were to be made, the method to use would be to just simply plug the hole, and I don't suppose the cost would exceed $250 for the temporary plugging of the
2364 hole.

Q. How long would it take to plug that hole in the way you have indicated? A. I should think thirty-six hours would be sufficient.

Q. And what would be the cost of the drydock for thirty-six hours, sufficient to hold an 8,800 ton vessel? A. I suppose the drydock dues and the repairs would not exceed $1,200.

Q. Did you figure from the specifications of the damage to the vessel *Willdomino*, whether the water could have been kept down in No. 1 hold

with pumps so that she could have been unloaded? 2365
A. No, sir.

Q. You didn't figure that? A. No, sir.

Q. Now, assume that it took half an hour for the water to fill up that hold, filling up to the water line of the vessel—Mr. Single says 20 minutes to half an hour—do you think the water could have been reduced by pumps so that the cargo from that hold could have been taken out without the use of divers?

Mr. Sprague: I object to that, your Honor, because the evidence simply shows that in twenty minutes there were twenty 2366
feet of water; it doesn't show that it took twenty minutes to get it in; the testimony is, it was sounded after twenty minutes; it may have gone in in two minutes.

Mr. Carpenter: I think the master testified that he heard the water rush in.

The Court: I will permit this question.

A. Considering the fact that No. 1 hold was practically full of cargo, there would certainly be no more than twenty per cent of space of the hold left for the water, and I should think if it took twenty minutes to fill you would have been 2367
easily able to control the water with two six or eight inch pumps.

Q. Two six or eight inch steam pumps? A. Yes.

Mr. Carpenter: I think that is all.

(At this point an adjournment was taken to Tuesday, February 27, 1923, at 10:30 A. M.)

W. R. Jeffcott—for Libellant—Recalled—Rebuttal—Direct.

2368

Tuesday, February 27, 1923, 10:30 A. M.

Case continued.

Appearances as before.

Mr. Carpenter: Mr. McNaught has not got here yet. I will put Captain Jeffcott on for some questions I wanted to ask him.

WILLIAM R. JEFFCOTT, recalled:

2369 *Direct examination by Mr. Carpenter:*

Q. Captain Jeffcott, you testified yesterday that you had been a master mariner? A. No, I didn't testify, but I have been.

Q. Oh, I thought you had. How many years were you a master of a vessel? A. Between eight and nine years.

Q. Did you ever sail the Mediterranean? A. Not as master; as an officer.

Q. Did you ever, as master, sail into Lisbon and Ponta Delgada? A. No.

Q. As officer? A. As an officer, yes.

2370 Q. What officer were you when you were in those ports? A. Second and chief.

Q. And you sailed from Ponta Delgada to New York and from Lisbon also to New York? A. No, I have sailed from Lisbon to South American ports.

Q. Now, have you examined the logs of the *Willdomino?* A. Yes, I saw the logs at the adjuster's.

Q. Did you ever see the rough log or scrap log? A. No, I did not.

Q. The master's testimony is that that was on

2371

the vessel when it came into New York and he had never seen it since; was it ever shown to you? A. No, I didn't see it.

Mr. Sprague: I will show it to you now if you want it. We have offered it to your office three or four times.

Mr. Carpenter: Do you contend that that is the scrap log on this particular voyage?

Mr. Sprague: Absolutely.

2372

Q. All right. Now, then, from the log, how many tons of coal did the *Willdomino* take when she went eastward from Norfolk on this same trip?

Mr. Sprague: I object to that, your Honor; the log is in evidence. Why should this witness say what it contains?

Mr. Carpenter: I am going to show that the coal she came back with was insufficient to bring her to her destination.

The Court: I suppose that is an element that may be taken into consideration. I will admit it.

2373

Mr. Sprague: The log shows it.

The Court: Is it the form of proof that you object to?

Mr. Sprague: Yes.

Mr. Carpenter: It is 1679; do you agree to that?

Mr. Sprague: I don't agree to that; I don't know what it shows, but it is in the log.

2374 The Court: Did you make the entry in the log?

The Witness: No, this is the ship's log.

The Court: If the log is admitted, we will take the contents of it.

Q. Which log shows the coal which was on the vessel when she went from Norfolk? A. Well, I got some coal from the—not from this scrap log—from the log that the adjusters had.

Q. Was that the engineer's log? A. No.

2375 The Court: Which log did the adjusters have?

The Witness: They had all of them. That's where I found the scrap log; those are the mate's logs.

Mr. Carpenter: And this is the chief officer's log.

A. I saw the engineer's log on board ship.

Q. Do you know which one of these logs has it in? A. 1,677 tons.

Q. The engineer's log shows that she sailed from Norfolk with 1,677 tons of coal? A. Yes.

2376 Q. Now, then, did you examine the log to see how many tons of coal this vessel had when she sailed from Gibraltar and from Lisbon? A. When she sailed from Lisbon, I understand she had 650 or 651 tons of coal on board, sailing from Lisbon.

Mr. Sprague: I make the further objection that is immaterial, as it affects this case, because of the fact that Lisbon was a port of call after she started on her voyage with this cargo aboard.

The Court: I will permit it.

W. R. Jeffcott—for Libellant—Recalled—Rebuttal—Direct.

2377

(Respondent's counsel prays an exception, which is hereby allowed and sealed accordingly.)

(Sealed.)

Q. Now, the vessel sailed from Lisbon to New York according to the log; what was the destination of the vessel from Lisbon?

Mr. Sprague: Your honor, I make another objection here. It does seem to me that if the logs are in evidence it is for the Court to decide what they do state. 2378
To have this man come in who is not an officer of the ship and state, "I have read the logs and they state thus and so," is purely a waste of time.

The Court: I sustain the objection. We can gather this information from more competent evidence.

Q. Now, then, have you figured up, Capt. Jeffcott, the distance, using the Great Circle course from Lisbon to New York? A. Yes.

Q. How many miles is it? A. 2960.

2379

Q. Now, have you figured the Great Circle course from Ponta Delgada to New York? A. Yes.

Q. How many miles? A. 2241.

Q. Those nautical miles in both cases? A. Nautical miles.

Q. Now, you know, from the master's testimony, that this vessel consumed from 43 to 50 tons of coal per day, do you not? A. Yes.

Mr. Sprague: That is under the low pressure turbines alone.

2380

Q. On the low pressure turbines alone? A. Yes.

Q. That was the only turbine that was working when she sailed from Ponta Delgada, was it not? A. Yes, when she sailed from Ponta Delgada.

Q. Now, then, when the vessel sailed from Lisbon to New York, according to the master's testimony, both low and high turbines were working? A. Yes.

Q. What was the coal consumption of the *Willdomino* per day running from Norfolk westward

2381 to Marseilles?

Mr. Sprague: I object to this; this man is not an engineer; he is not qualified to testify as to turbines.

The Court: I sustain the objection.

Q. You know from the engineer's testimony what they testified the coal consumption was on these high and low pressure turbines on the eastward trip, do you not?

2382 Objected to as hearsay.

A. I know from the length of time the ship took on her eastward passage and the amount of coal consumed that she averaged eight knots on the whole passage eastward and consumed 42 tons of coal per day.

Mr. Sprague: I move to strike out all this testimony, your Honor, as purely secondary.

The Court: Sustain the objection. Strike it out.

2383

Q. Assuming that the *Willdomino* on using her high and low pressure turbines on her eastward trip consumed 42 tons of coal per day and averaged 8.2 knots per hour, did she have coal enough when sailing from Lisbon for New York on the Great Circle course with that quantity of coal she had to make her destination in New York?

Mr. Sprague: I object to that, your Honor, on the same grounds as before stated. Also on the grounds he is not competent to testify as an engineer.

2384

The Court: I will permit this question.

(Respondent's counsel prays an exception, which is hereby allowed and sealed accordingly.)

(Sealed)

Mr. Sprague: Further on the ground that the conditions on the eastward trip are not shown to be the same as they were on the western trip.

The Court: You had better state something in the question regarding the conditions.

2385

Q. Well, it is a preliminary question. Would the conditions on the trip westward be any different than what they would be on the trip eastward? A. Not materially at that time of the year.

Q. Would the Gulf stream or the normal trade winds have any effect on the westward trip at that time of the year more than they would on the eastward trip? A. The Gulf stream will have an influence over it, averaging probably half a mile an hour.

2386 Mr. Sprague: I move to strike out on the ground the witness has testified he never sailed from Lisbon to New York: the line from Lisbon to South American ports is entirely different.

The Court: Motion denied.

(Respondent's counsel prays an exception, which is hereby allowed and sealed accordingly.)

(Sealed)

2387 Q. What is that half a mile distance: what do you mean by that? A. The current, while in the influence of the Gulf Stream will probably average half a mile an hour setting to the eastward.

Q. And that would be more favorable to an eastward passage than a westward passage? A. Yes.

Q. Just answer my question that I asked a minute ago: did the vessel when sailing from Lisbon have enough coal to reach New York on high and low pressure turbines?

Objected to.

2388 The Court: I have already ruled. You have an exception.

(Respondent's counsel prays an exception, which is hereby allowed and sealed accordingly.)

(Sealed)

A. Taking her speed at eight knots and the distance on the Great Circle as 2,960 miles, which is about the shortest possible distance to

2389

make, it would take her 15½ days at 42 tons a day, would be 681 tons, and allowing say 25% additional coal for emergencies, she should have had about 800 or 810-815 tons.

Q. She only had how much? A. About 651 tons leaving Lisbon.

Q. She should have had? A. She should have had.

Q. Now, how much did she actually have? A. She had about 650.

Q. That is using both high and low pressure turbines? A. Yes.

2390

Q. Now, then, assuming that this vessel when she sailed from Ponta Delgada sailed with her low pressure turbine working only, the high pressure was out of order and that she sailed from Ponta Delgada with 630 tons of coal; did she have enough coal, making the maximum speed she could make on her low pressure turbines to have reached New York Harbor?

Mr. Sprague: Same objection.

Q. Over the Great Circle course.

2391

Objection overruled.

(Respondent's counsel prays an exception, which is hereby allowed and sealed accordingly.)

(Sealed)

A. Well, the consumption was estimated——

The Court: No, no; you can answer that question yes or no.

A. No.

2392

Q. You estimated the coal consumption according to the engineer's logs? A. Yes.

Q. And the log of the master? A. Yes.

Q. Now, then, in sailing steam vessels what is the customary coal that is carried; is there any quantity that is carried by a ship on a voyage or is it just enough to take her to destination or any more or less?

Mr. Sprague: I object to that, your Honor.

The Court: Sustain the objection.

2393

Mr. Carpenter: Your Honor, I would like to point out that in certain decisions of Admiralty courts they have held that vessels must carry a certain surplus of coal, a certain percentage above the actual requirement to get them to port.

The Court: I will follow those decisions.

Mr. Carpenter: I want to show what prudent seamanship required.

Q. Is it prudent seamanship, Capt. Jeffcott, for a vessel to sail from one port to another with barely enough coal to take the vessel to her port of destination?

2394

Mr. Sprague: I object to that; it is a question for the Court to decide.

The Court: I will permit it.

A. No, it is not.

Q. Is there any quantity which prudent masters customarily carry in addition to their bare requirements to take them to port?

Same objection.

The Court: Permitted.

2395

(Respondent's counsel prays an exception, which is hereby allowed and sealed accordingly.)

(Sealed)

A. Well, it depends altogether on the voyage.

Q. I mean a voyage across from Gibraltar we will say to New York or from Lisbon to New York or a European port to New York. A. Well, any ship, transatlantic, I estimate should have about 25% of coal in excess of her estimated consumption.

2396

Q. Why?

Mr. Sprague: I move to strike out the answer as not responsive.

The Court: I will permit it to stand.

(Respondent's counsel prays an exception, which is hereby allowed and sealed accordingly.)

(Sealed)

A. For emergencies.

Q. Now, Capt. Jeffcott, is the port of North Sydney, Cape Breton or Sydney a customary stopping point for transatlantic steamers running from European ports to New York?

2397

Mr. Sprague: I object to that on the ground that it is irrelevant in this case and immaterial; secondly on the ground that he is not competent to testify.

The Court: Permitted.

Mr. Sprague: Moreover on the ground that the bill of lading gives us a wide range of ports as to what we are allowed

2398 to do; it is not taken into consideration in his question.

The Court: What about the latter ground?

Mr. Carpenter: Counsel has overlooked a very important stipulation in that bill of lading; there is a clause written into that bill of lading which provides that they may stop on westward voyages only for the purpose of picking up cargo; that overrides printed clauses, of course, having been written into the bill of lading.

2399 The Court: If there is some question about it, I will let the question go in. If I have to construe the bill of lading in any respect I will let the testimony go in and construe it afterwards. Go ahead with the question and answer.

A. No.

Q. Is Halifax, Nova Scotia, a customary stopping point for vessels running from European ports to New York? A. No.

Q. Now, then, have you calculated, Capt. Jeff-
2400 cott, the distance that North Sydney, the port of North Sydney is out of the customary course taken by vessels running from Lisbon to New York, how much out of the way it is? A. No, I have not calculated that.

Cross examination by Mr. Sprague:

Q. I believe you stated yesterday in your examination, Captain Jeffcott, that you were surveyor for the underwriters? A. Yes.

2101

Q. And you have been doing that business for some time, haven't you? A. Yes.

Q. How long? A. About seven years.

Q. When did you last go to sea? A. At the end of 1915.

Q. And you were then a master, were you? A. Yes.

Q. Now, when you were in Lisbon, you were second officer, weren't you? A. Yes.

Q. Does the second officer have much to do with the question of coal that goes on a vessel? A. No.

2102

Q. That is left entirely to the discretion of the captain and the chief engineer, isn't it? A. Yes.

Q. How many voyages have you made between Mediterranean ports and New York? A. I have not made any voyages direct between Mediterranean ports and New York; I have sailed from continental and British ports to New York and from there to the West Indies from——

Q. How many have you sailed—excuse me? A. Go on.

Q. I thought you had finished. I didn't intend to interrupt you. How many have you 2103
sailed as master from British ports to New York? A. I haven't been as master on the Atlantic.

Q. You haven't been master at all on the Atlantic, have you? A. No, not at all.

Q. Your grade was second officer when you were on the Atlantic? A. Second and chief.

Q. When were you chief officer when you were on the Atlantic? A. 1901 running to the West Indies.

Q. You have never been chief engineer, have you? A. No.

2404

Q. Or an engineer in any grade? A. No.

Q. Did you ever sail with turbines? A. No.

Q. You have had no experience whatsoever with turbines, have you? A. No.

Q. And any testimony that you are giving is based upon the logs? A. Is based upon what?

Q. Is based upon the master and chief engineer's logs and their testimony given in this case? A. No: part of the testimony I have given in this case is based upon my own experience and my own training as a seaman.

2405 Q. As a second officer on the Atlantic, isn't that correct? A. And my experience as chief officer and master in various other trades in other parts of the world; the Atlantic is not specially —nothing special about the Atlantic in these questions.

Q. What license do you hold now? A. British Extra Master's certificate.

Q. Do you hold an American license? A. No.

Q. From what did you compute the distance from Lisbon to New York? A. The positions of the two ports.

Q. But the chart? A. Partly from the Great
2406 Circle chart, the tract laid down of the positions taken at every 5 degree and the distances computed between those positions.

Q. And the distance from Ponta Delgada to New York in the same way? A. In the same way.

Q. Have you ever been in the Port of Sidney? A. No.

Q. Why do you say that it is not a customary port for bunkering on the Atlantic? A. Because it is out of the way.

Q. Assuming that this is a British ship taking coal at British ports, wouldn't that be an ordinary

2107

port for her to coal at? A. Not if the voyage was to New York from Lisbon.

Q. Do you know what the coal conditions were in the summer and fall of 1920 as far as bunkering foreign ships were concerned in New York? A. Not specially.

Q. You do know, do you not that restrictions were placed upon bunkers to foreign ships at various times during that year? A. I know that there was restrictions but I don't recall just when or what they were.

2108

Q. And those restrictions required the foreign ships to go to ports of their own nationality in order to get coal? A. I don't know that.

Q. Well, now assuming that the facts are as stated here that the vessel was a British vessel and that Sidney was a bunker port for that vessel, there was nothing out of the ordinary for her to go to Sidney for bunkers, was there? A. If she was ordered to Sidney I suppose she would go there.

Q. Well, assuming she was not ordered to Sidney. A. Well, I think it was out of her way, certainly on a voyage from Lisbon to New York.

2109

Q. Well, does a vessel taking general cargo at several different ports go straight from the port where she takes her first cargo to the port of destination? A. No.

Q. She goes to the various ports to pick up cargo, doesn't she? A. Yes.

Q. And to take bunker? A. Well, she had completed her cargo on the other side of the Atlantic altogether, and she was coming then on the voyage to New York.

Q. Do you know what the weather conditions

2410 were that this vessel had on the way from Lisbon or Ponta Delgada to New York? A. Only from looking through the logs generally.

Q. And do you know what the weather conditions that she experiences from Norfolk to Marseilles were? A. I don't recall now. All my knowledge of that, of course would be just what might appear in the log book.

Q. Do you know how much cargo she had on the voyage from Norfolk to Marseilles as compared with that from Lisbon to New York? A. No.

2411 Q. That would have something to do wouldn't it, with the speed of the vessel? A. A little.

Q. Do you know that this vessel had made on various trips much more than 8.2 which, I understand you to say was her speed using both turbines? A. Yes, I know she had made ten knots, but taking the passage as a whole, she had made about eight.

Q. Do you know that the vessel had also made more than 5½ knots when travelling with only a low pressure turbine? A. Yes.

Q. Now, you have computed her as using 42
2412 tons of coal per day? A. Yes.

Q. When using both turbines at eight knots? Haven't you? A. Yes.

Q. And where do you get those figures of 42 tons per day? A. Well, the master of the ship told me what his average consumption was, about 42 tons.

Q. Then your statement is purely hearsay on what he told you, isn't it? A. Yes.

Q. The logs are the best evidence? A. Oh, the logs undoubtedly; if the log shows anything else, I don't——

2413

Q. As I understand it you have taken the distance from Lisbon to New York? A. Yes.

Q. Divided it by the number of knots or by the number of miles that you think she should make, at eight knots? A. Yes.

Q. And then arrived at the conclusion as to whether or not she had enough coal on board? A. Yes.

Q. How much additional did you add to the actual amount at eight knots? A. About 25%.

Q. 25% although the vessel had made as much as ten knots? A. Yes, taking her average speed.

2414

Q. But that wasn't her average speed, was it, as shown by the log? A. Yes, that was her average speed as shown by the log.

Q. You think it was; you think that was her average speed as shown by the log? A. Eight knots, I think, was her average speed on the passage east; that is on the last long passage that she made; it is not always fair to a ship to take her averages on short passages.

Q. Where do you get the information which causes you to state that the influence of the Gulf Stream is only half a mile an hour? A. Current charts.

2415

Q. Have you navigated against the Gulf Stream as a master? A. Not as master.

Q. Have you as chief officer? A. Yes.

Q. Did you make experiments and notations at that time to determine the influence of the Gulf Stream? A. No; the experiments that are made and laid down on the chart are much more complete than can be made by any single navigator mapping out positions between observation and dead reckoning.

W. R. Jeffcott—for Libellant—Recalled—Rebuttal—Cross.

2416

Q. Did you check up the engineer's report as to revolutions of his propellor and the slip of the propellor to show how much was lost? A. No.

Q. Don't you know that in this very case of the *Willdomino* that there were losses of at least 54% when bucking the Gulf Stream? A. I don't know that.

Q. You have read the Chief Engineer's testimony, haven't you, to that effect? A. Yes, I have looked through it.

Q. Did you read it all? A. No, not in par-
2417 ticular; I glanced through it.

Q. You read parts of it? A. I read parts of it.

Q. Parts that interested you? A. Possibly.

Q. Do you know how much bunkers out of this 1,677 tons which you say the *Willdomino* had on board when she left Norfolk she had on board when she discharged her cargo at Marseilles? A. No, I don't recall that.

Q. You don't intend to let the inference be drawn from your testimony that she used all the 1,677 tons in her trip to Marseilles, do you? A. Oh, no.

Q. It is quite usual, isn't it, for vessels to
2418 bunker on this side for the round trip? A. Surely if they can carry enough coal.

Q. You didn't know, did you, that this vessel had been bunkered with some two thousand tons of coal at Portland brought down by a sister ship from North Sidney just before she went to Norfolk? A. I didn't.

Q. You hadn't learned that? A. No, she must have had pretty big bunkers.

Q. How do you know, Captain, that Sidney is not a port of call for bunkers on the Atlantic

2419

coast for vessels coming from the Mediterranean, when you have not been to sea on the Atlantic according to your own testimony for some seven years? A. I don't think any port is a port of call if it is as much out of the way as Sidney.

Q. And you have never been in Sidney yourself? A. No, never.

Q. Well, isn't it simply a theory of your own that you are giving us here, rather than based on any practice at all? A. No, it is no theory.

Q. What do you call it then? A. I don't know what you would call it; I don't see any theory about it.

2420

Q. That's all.

Mr. Carpenter: That's all.

Re-direct examination by Mr. Carpenter:

Q. As an underwriters' agent, would you consider that Sidney was on a voyage between Lisbon and New York?

Mr. Sprague: I object to that, as an underwriters' agent—I don't see that it makes any difference.

2421

The Court: Sustain the objection.

Re-cross examination by Mr. Sprague:

Q. Now, Mr. Carpenter mentioned some clause in this bill of lading about filling up; what do you understand filling up to be? A. What's that?

Q. What does filling up mean; what do you understand that to mean? A. Filling up?

2422 Q. Yes, in connection with a ship? A. I don't know anything special—filling up.

Mr. Carpenter: I don't think he has ever seen that clause.

JAMES MCNAUGHT resumes the stand.

Direct examination continued by Mr. Carpenter:

Q. Mr. McNaught, have you ever sailed as an
2423 officer on a ship? A. I was twenty years chief engineer.

Q. Ever sail in a vessel with turbine engines? A. No, sir.

Q. You didn't? Now, then, did you ever touch at the ports of Lisbon, Ponta Delgada and Gibraltar? A. Gibraltar, yes.

Q. Did you ever touch the Port of Lisbon? A. No, sir.

Q. Now, what ports have you sailed? A. All over the world.

Q. Did you ever sail from European ports to New York? A. Repeatedly.

2424 Q. Now, then, do you know the courses from European ports to New York? A. I have always come direct from Gibraltar or England to New York.

Q. Now, did you ever, on a transanlantic ship touch at the port of Sidney, Cape Breton? A. No, sir.

Q. Or Halifax, Nova Scotia? A. No, sir.

Q. Are they regular ports of call on voyages between New York and European ports?

Objected to. 2425
The Court: Permitted.

A. They are ports of refuge.

Q. Now, as an engineer on transatlantic and other steamers, is it proper practice for a ship to sail from one port to another with only enough coal or barely enough coal to get to her port of destination? A. No, sir.

Q. Why not? A. Because in case of heavy weather there is no reservation that prudent seamen and engineers of vessels customarily have in sailing from one port to another.

2426

Mr. Sprague: I think that that should be qualified, your Honor; the question of the amount of reservation, it seems to me should depend upon other circumstances other than as stated here, the question of the voyage, the length of the voyage, the time of the year, the kind of engines used.

Mr. Carpenter: All right, all right.

Q. Assuming a voyage from European ports to New York, in the summer time, a vessel say of 8,800 tons, what is the prudent margin of safety of coal to have on such a ship? A. Not less than 20% in excess of the average speed of the vessel. 2427

Q. Now, are you familiar with the Nova Scotia coast? A. Yes, sir.

Q. Have you ever been at Sidney? A. Yes, sir.

Q. Been in Halifax? A. Yes, sir.

Q. What kind of coast is it along Nova Scotia between Sidney and Halifax? A. Very dangerous coast.

2428 Mr. Sprague: Well, I object to that; this gentleman is not a navigator; he is a chief engineer; it is not shown that he knows anything about the coast except he has been in those two ports.

The Court: Well, I could tell myself if I had been on the sea for so many years and I am not either. I will permit it.

Q. You say it is a very dangerous coast; why, Mr. McNaught? A. Fogs are very prevalent; the currents are very treacherous and the coast is very tortuous and rugged.

2429 Q. The coast is tortuous and rugged, is that it? A. Yes.

Q. Is it a coast which is known to mariners to be a dangerous coast? A. Yes, sir.

Q. Now, have you calculated the amount of coal that was consumed by the *Willdomino* on her trip eastward? A. No, sir.

Q. Or westward? A. No, sir.

Q. Now, do you know the transatlantic chart which I have here? A. Yes, sir.

Q. What is the Great Circle course; will you point it out to the court; you know it, do you?

2430 The Court: Just state it; do these lines show it?

The Witness: These lines show it.

Q. What is the Great Circle course? A. From New York across here to Lisbon and Ponta Delgada.

Q. As it is shown here on this chart?

The Court: Is it numbered?

2431

Q. What is the number of it? A. It is marked Gibraltar to New York.

Q. Gibraltar to New York, 3,203? A. Yes.

Q. How far off of that course from Gibraltar to New York is Sidney? A. Very considerably out of the course.

The Court: How far?

Mr. Carpenter: Very considerably.

A. Approximately 500 miles.

Q. How long would it take approximately for a ship at Gibraltar to have taken on 200 tons of 2432
extra coal?

Mr. Sprague: I object to that.

Q. You have been at Gibraltar and know loading conditions there? A. Repeatedly.

The Court: Permitted.

(Respondent's counsel prays an exception which is hereby allowed and sealed accordingly.)

(Sealed)

2133

A. Two hours and a half.

Q. How long would it take for a vessel to take on 200 tons of extra coal, running from Gibraltar to New York, and run into Sidney and out again to take on coal; would that be a longer or shorter time than to take on 200 to 250 tons at Gibraltar? A. A longer time.

Q. Well, much longer or a matter of hours or days? A. At a rough estimate, it is a matter of days.

2434 Q. Assuming the steamship *Willdomino* sailed from Lisbon to New York on the Great Circle course, would she have been anywhere near Canso on that course? Do you know Cape Canso? A. I am afraid I am not competent to answer that question.

Q. You are not competent; would she have been anywhere near Sidney? A. No, sir.

Q. And Canso is approximately half way between Sidney and Halifax, is it not? A. Yes, sir.

Q. On the east coast of Nova Scotia? A. Nova
2435 Scotia, yes.

Cross examination by Mr. Sprague:

Q. Mr. McNaught, you are a member of the firm of Esplen Sons and McNaught? A. I am.

Q. And that firm was acting as agents for the *Willdomino?* A. No, sir.

Q. Some time prior to this accident? A. Yes, sir.

Q. And at the time of the accident that firm was connected with the firm of Esplen & Sons of Liverpool? A. Yes.

2436 Q. And the firm of Esplen & Sons were actually acting for the boat at that time? A. I didn't know that.

Q. You don't know it? A. No, sir.

Q. Are you now the agent for the vessel *Willdomino?* A. No, sir.

Q. Yesterday in your direct examination, you were speaking about the question of plugging this hole; did you know at the time you answered the question as you did that the divers had examined this hole at Halifax and had reported that it could not be plugged? A. I did.

Q. Well, if the divers said it could not be plugged, then you would expect that divers would plug it, would you? 2437

Mr. Carpenter: I submit that the divers' report ought to be shown.

Q. I read from the report of London Salvage Association in evidence as Claimant's Exhibit Y.

Mr. Carpenter: That is not the diver's report.

Q. "Diver was sent down and reported 'steam bar broken at about five floor mark and shoved back together with plating and floors; two floor stays abaft collision bulkhead not practicable to patch or plug from outside.'" 2438

Mr. Sprague: Now, I might state for your Honor that the diver's report which is attached does not state that, but that the witness who made this report was examined—the Lloyd's Salvage Association report—and stated that that report was made to him verbally by the diver who went down; for that reason they recommended dry docking. 2439

Mr. Carpenter: There is a diagram there attached to the diver's report. I submit if the report is shown Mr. McNaught I won't object.

Q. Well, I show you the Salvage Association report with the excerpt that I have just mentioned, and ask you whether upon the basis of such a report—— A. May I look at the diver's report?

2440 Q. I submit this to you first, and ask you if upon the basis of that, you would expect that the hole could be plugged? A. I take it that the man who has drawn up this report has arrived at this conclusion from the diver's report.

Q. But it is in quotes, Mr. McNaught: "The diver's report as follows" and then quotes; that would indicate that the diver was reported to him, would it not? A. Taking this quotation, it is so.

Q. Well, now, in order that all the facts may be before the Court, look at the diver's report and sketch at the end; answer the same question.
2441 What is your answer on the basis of the diagram? A. My answer is that it would require more information than the diver has reported before I would make a decision; that is from the diagram.

Q. Assuming that the testimony shows that Lloyd's surveyor, the Halifax surveyor of the London Salvage Association and the Port Warden, joined in a recommendation that the vessel be brought forward to New York, after shoring up the bulkhead between No. 1 and No. 2 hold, and in tow of a tug; would you state that
2442 the master and owners were justified in bringing the vessel forward on such a recommendation?

Mr. Carpenter: That is a question for the Court, I should think.

The Court: I will permit it.

A. Yes.

Q. The temporary plugging that you have mentioned is only found and only done when you are

trying to get the vessel forward to destination, isn't it? A. It is done for purposes of drying the hold out and recovering the cargo. 2443

Q. Is that done at the port of destination when the vessel has got to be permanently repaired? A. We have a case that occurred on the East River only some five weeks ago in which I was retained, in which a Shipping Board vessel struck in No. 1 hold and managed to get to her pier before taking the mud; she was patched, pumped out and all the cargo recovered before dry docking.

Q. Well, now, was that vessel at her home port at the time? A. She was outward bound. 2444

Q. She hadn't broken ground yet? A. She had cleared.

Q. She had cleared, but she hadn't left the harbor? A. No, sir.

Q. What kind of a cargo was it? A. General cargo.

Q. How long had it been under water at the time that the patch was put on? A. About three days.

Q. Would your statement about the question of putting a patch on for the purpose of taking off this cargo be changed at all if you knew that at the time that the vessel went into dry dock here in New York, the owners of this specific cargo had stated that it was a total loss? 2445

Mr. Carpenter: Just a minute; I object to that; that is contrary to the fact; it wasn't sent until the 23rd of August.

Mr. Sprague: She didn't go into dry dock until the 26th.

2446 A. If it were a total loss I should certainly not consider patching it.

Mr. Carpenter: Just a minute; I further object that there is absolutely no evidence in the case that the owners of this ship or any officer of the ship knew that the owners had said that cargo was a total loss; that statement was made to two insurance men over there and there is no evidence that the ship or any officer of the ship, the owner or any representative of the owner knew anything about it.

2447 The Court: Change the question so as to be in accord with those who made the statement.

Mr. Sprague: I didn't quite get your Honor's suggestion.

The Court: I say change the form of the question and put in the question the names of the persons who made the statement about this being a total loss.

Mr. Sprague: And the persons to whom they made it?

The Court: Yes.

2448 Q. Would your opinion as to the question of putting a patch on this hole for the purpose of taking out this cargo be changed if you knew that prior to the time the vessel went into dry dock for the first time, a representative of the owners had stated to the underwriters that the cargo was a total loss?

Mr. Carpenter: I don't want to be too captious.

A. A representative of the owners? 2449

Q. Owners of the citrate of lime, the cargo. A. That being so there would be no object in patching the vessel.

Q. Now, in this Shipping Board vessel, the cargo was to be taken forward, wasn't it, from here? A. Yes.

Q. It isn't a similar case, is it? A. Oh, no.

Q. To that of the *Willdomino,* where the ship has arrived at her destination? A. No, sir, I just quoted it as a case in point.

Q. Now, you wouldn't recommend, would you, Mr. McNaught, doing a thing twice if the cargo is a total loss? A. Certainly not. 2450

Q. If you were going to make permanent repairs and those have to be made anyhow, and the vessel is at her port of destination and the owners of the cargo have stated to their underwriters that it was a total loss, you would not consider it was necessary to go to the extra expense of plugging that hole, would you, to take that cargo out? A. The whole thing is decided on the salvage value recovered.

Q. Now, you stated yesterday that this citrate of lime could be taken up out of lower No. 1 hold and stowed in the 'tween decks while she was in dry dock; that would be based upon the assumption that the cargo was still valuable, wouldn't it? A. Undoubtedly; or for access to repairs. 2451

Q. And if at the time you knew that the consignees of the cargo had stated to underwriters that it was a total loss and had made a claim for refund of their duty from the government, you wouldn't consider so moving that cargo, would you?

2452 Mr. Carpenter: I object to that; there isn't any evidence that the owner of this ship ever knew that the owners of that cargo ever took that position until along in September—September second we said we would take this cargo if they got it out and they never made the tender until October; so this is all based on the assumption that the owners of the ship knew what the owners of the cargo said to their insurance company.

The Court: (After argument.) I will
2453 permit the question.

Mr. Carpenter: I want to object to that on the ground that he ought to give him the knowledge that the owners had as contained in that letter.

The Court: Yes; reframe the question so as to give this witness the same information.

Q. If, at the time you were asked as to the question of moving this cargo from lower No. 1 hold to the 'tween decks of the vessel, you had known that on August 26th Mr. Haffey represent-
2454 ing the Pfizer Company had stated to the underwriters that that was a total loss; that on September 2nd Haffey had, for Pfizer & Company sent a letter to the agents of the vessel stating that from samples taken from about forty casks out of the shipment, it appeared that the goods were a total loss because they had been in the water so long a period and notifying them that they reserved the right to file claim covering this damage as soon as the cargo was taken out of the ship; would you, with such knowledge, have recommended the moving of this cargo from lower

No. 1 hold up to the 'tween decks? A. I would endeavor to satisfy myself before deciding that they absolutely abandon the cargo for on this letter it appears that they had not. 2455

Q. Do you mean to say that you would make further inquiries and investigations beyond what the consignees themselves said? A. They don't say it, might I suggest, in so many words.

Q. But they do say that from these samples it appears that these goods will be a total loss? A. They only say that they have taken the samples from about nine per cent. of the total consignment and they say that they reserve the right. I should have them declare before deciding that they would either reject or assist in such salvage as may be obtained from the residue. 2456

Q. Well, the reservation of the right, refers, does it not, to the reservation of the right to file a claim ? A. Exactly.

Q. Giving the amount of the loss ? A. Exactly.

Q. It doesn't refer to any question—— A. The amount of the loss; but that would indicate that the loss was not absolute.

Q. But you have their actual statement, have you not here, that it is a total loss? A. I don't interpret it that way, sir. 2457

Q. It appears that these goods will be a total loss—wouldn't you understand from that that these consignees thought that these goods were valueless? A. I would ask them to definitely state so.

Q. You would ask them for more than that? A. Yes, the whole question resolves itself into what value remains as to what sum of money should be spent in the salvage operation.

Q. Well, if the thing is a total loss, there

2458 doesn't any value remain, does there? A. That is perfectly true.

Q. Now, I understood you to say yesterday that you knew of instances where divers had discharged cargo from a vessel for the purpose of saving the cargo? A. That's right.

Q. Now, will you please state what instances you know of prior to August, 1920? A. The case of the *Macona* of the Barber Steamship lines.

Q. Where was that vessel? A. She was on the Windward Isles.

Q. Ashore? A. Yes, sir.

2459 Q. What was the purpose of taking that cargo off? A. To lighten the vessel.

Q. Well, that was for the purpose of getting the vessel off, wasn't it? A. Certainly; it was a question of the diver removing the cargo.

Q. In order that the vessel could get away? A. Precisely.

Q. Now, I am asking of any instances that you know of where the ship is at the port of destination and divers are used to take the cargo out of the vessel for the purpose of saving the cargo and not for any purpose of the vessel? A. Per-

2460 sonally I know of no such case.

Q. Did you ever hear of any such case? A. Oh, yes, sir.

Q. Has there been any such case to your knowledge in the Port of New York in the last five years? A. No, sir.

Q. What kind of cargo was it that you say you have heard of in certain cases? A. It is no exception; it is common practice.

Q. Well, you say there has been none for five years in the Port of New York? A. In the Port of New York. Of course New York, although

it is the largest port in the world is not necessarily the deciding factor. 2461

Q. Well, if it is common practice, it is likely to happen in five years, isn't it, in the Port of New York? A. If you read the nautical papers you will find cases occurring regularly. To quote them is rather difficult.

Q. But in most of the cases where the cargo is taken out, in all the cases that you know of where the cargo has been taken out by divers, it is for the purpose of lightening the vessel? A. Surely.

Q. Or for bringing the vessel up so that you could get her in? A. Or saving the vessel or the cargo. 2462

Q. Or salving the cargo where the cargo is sunk? A. Precisely.

Q. Now, you gave some figures yesterday as to the cost of patching that ship and I understand you to say you didn't see the vessel, and you have made your figures entirely from the specifications? A. From the specifications.

Q. When were you called into this case by the libellants, Mr. McNaught? A. Possibly a month ago.

Q. Did you ever see a picture of this damage? A. Yes. 2463

Q. Where did you see the picture? A. In this diver's report.

Q. Well, that is just a drawing of what the diver found but did you ever see a photograph of the damage after the vessel got into the dry dock? A. No, sir; I drew a picture from the specifications.

Q. Oh, you drew a picture yourself from the specifications? A. From the specifications.

2464 Q. Suppose you were advising a ship building company in regard to the question of putting on a temporary patch, you would not figure on it without going over and seeing the hole yourself, would you? A. A temporary patch is a misnomer. I wouldn't suggest a temporary patch; I mean a plugging.

Q. What is the difference? A. There is much difference; plugging is simply driving plugs of wood into a hole; a patch is a shell that is secured by bolts and nuts in position and caulked in position.

2465 Q. Well, your estimate yesterday then was for mere plugging? A. Absolutely.

Q. And the expense of putting on a temporary shell or patch is much greater? A. Much greater.

Q. Than a plug? A. Than a plug.

Q. What is the purpose of the plugging? A. The purpose of the plugging is to stop the water going in.

Q. You don't stop the water entirely by driving plugs? A. Oh, no; you plug the hole and your pumps can then control the water.

Q. What pumps? There are no pumps belonging to the ship in that hold, are there ? A. There

2466 are pumps belonging to the ship into that hold.

Q. The ordinary bilge pumps? A. Yes, sir.

Q. They wouldn't be sufficient to take away this water, would they? A. If you plug it sufficiently, yes.

Q. You spoke yesterday of putting in two six inch lines. A. That was without plugs.

Q. Those would be extra pumps, wouldn't they? A. Well, you are speaking of two operations; which do you refer to?

Q. Well, assuming that you put in two six-

inch lines. A. Then I would hope to control the 2467
water without plugging effectually.

Q. Those would have to be connected, would they not, to the engine room? A. Independent engine.

Q. Then the two six-inch pumps were nothing more than a sort of salving operation from shore? A. Yes, sir.

Q. Having a steam plant alongside? A. No, the ship supplying the steam.

Q. The ship supplying steam? A. Surely.

Q. Well, they would have to be connected, then, to the pumps on the ship? A. To the winch 2468
pipes.

Q. Would those winch pipes be sufficient to supply steam? A. Should be.

Q. With a six inch pump? A. Yes, sir.

Q. When a vessel strikes head on, a reef, and brings her plates back, four feet back, abaft the bulkhead—collision bulkhead, there is a considerable strain on the plates abaft of that, isn't there? A. There is a disturbance, yes, sir.

Q. The rivets are loosened, a good many of them? A. In the immediate vicinity of the damage and caused by the impact.

Q. Well, aren't they often disturbed as far 2469
back as 20 or 30 feet from the place of damage? A. It might be so but it is unusual.

Q. Depends on the—— A. Structure of the ship.

Q. Depends on the structure of the ship, doesn't it, and the force with which it strikes? A. Yes.

Q. And that is a thing that you can observe by actual ocular observation, can't you; you cannot tell by a mere specification? A. Oh, that is true;

2470 but the specification covers the damage that is known.

Q. Now, these specifications call for permanent repairs, that you read over, didn't they? A. They did.

Q. Were you aware of the fact those repairs cost upwards of $30,000? A. I didn't know.

Q. Do you think that you can properly determine the cost of plugging a case of that character upon specifications for permanent repairs? A. I do think so.

Q. You think you can? A. Yes, sir.

2471 Q. Well, now, would you rather determine such cost, Mr. McNaught, if it were placed before you on the bare specifications, or upon specifications plus a sight by yourself of the actual wound in the ship? A. If the specifications are full, and of course the tenders have been accepted for the repairs on those specifications, they definitely state what damage the vessel has received.

Q. But does—proceed,—I interrupted.

A. And that being so, one is in a perfect position to know what damage a vessel has received and what means might be taken to block the whole.

2472 Q. Well, did you ever do that yourself, Mr. McNaught, where you were representing, we will say, a yard which was bidding for the repair of a ship; did you ever make the bids, based upon the specifications alone, without sending your own man to look at the ship? A. No, sir, we would draw up the specifications, and the yards who are going to submit a tender very often submit a tender on the specifications only, reserving the right to charge for any extra work that may turn up, so that if your specifications are not full, it shows how——

Q. Well, do you consider yourself more competent to testify as to the cost of a temporary patch or plugging of this vessel than the surveyor who was in charge of the repairs and was over there a dozen different times in charge of the work? 2473

Objected to.
Objection sustained.

Q. Your firm knew, did it not, that Sydney and Halifax was the bunkering port for the *Willdomino,* prior to 1920? A. I have no idea.

Q. Did you know that? A. No, sir.

Q. You knew it was a British vessel, didn't you? A. Yes, surely. 2474

Q. British vessels in 1920 had the same difficulty about obtaining bunkers in American Atlantic ports, didn't they? A. They had.

Q. As a matter of fact the *Willdomino* was in Portland, Maine, in the spring of 1920, was she not, and your representative was there surveying the ship? A. Yes, sir.

Q. And aren't you aware of the fact that at that time her sister ship the *Willcasino* brought her down some 2,000 tons of bunkers and transferred them to her? A. No, sir, I am not aware of the fact. 2475

Q. The British ship presumably takes bunkers at a British port, doesn't she? A. By no means.

Q. As between a British port and a foreign port? A. No, sir.

Q. When there are restrictions in the foreign port? A. Naturally, then, yes.

Q. The bill of lading in question provided this cargo be transported by the good steamship *Willdomino* to New York with opportunity to call at intermediate ports or any port or ports in or out

2476 of the customary route in any order to receive and discharge coal, cargo, passengers and for any other purposes. It further provided under Clause 8: "The ship has opportunity of filling up and/or bunkering at any port or ports in or out of the way." In addition, there was a clause written at the end which says: "Filling up only in ports on the way westwards of New York." I don't know what westward of New York means. I think it must mean westward to New York. Is that correct?

2477 Mr. Carpenter: All the other bill have that in "to."

Q. Now, under that form of bill of lading, hasn't the master a clear right to put into the Port of Sydney, a British port for coal, in your opinion? A. I am not an authority on bill of lading clauses and would prefer not to answer.

Q. This patch or this plug that you would put in wouldn't make a water-tight job, would it? A. No, sir.

Q. You would have to use the pumps to keep the water down? A. Yes, sir.

2478 Q. You don't know what the condition was as to obtaining coal in Gibraltar in July, 1920, do you? A. Some of our steamers were obtaining coal in Gibraltar; some of the steamers were——

Q. Did the firm of Esplen and Sons, your English firm, order the coal for this vessel at Gibraltar? A. I don't know.

Q. You don't know? A. No, sir.

Q. Did you know that the home port of this vessel was Halifax? A. No, sir.

Q. There are a great many dangerous coasts are there not, besides that from Halifax to Sydney? A. Surely.

Q. Halifax and Sydney are simply one of the dangerous spots? A. They are particularly dangerous. 2479

Q. Still there are a great number of ships go there, are there not? A. I look after two vessels that run there constantly.

Mr. Carpenter: What is that?

The Witness: I have two vessels in my charge that run there constantly. One is jammed now in the ice.

Q. That coast is not so dangerous as to keep ships away from it, is it? A. Certainly not. 2480

Q. Coud you tell what the size and character of this hole was, without seeing it? A. No, sir.

Q. How could you tell how to plug it without seeing it? A. By the plates that were disturbed and broken.

Q. That involves more or less of a guess on your part, doesn't it? A. A shrewd guess, yes.

Q. If you were the master of the vessel and you found out by report from the chief engineer six days after leaving Ponta Delgada that the engines were burning more coal by using the low pressure turbine alone than had been expected and you were making less speed than you had expected, and you were short on coal at that time, would you criticise the master for putting into Sydney for coal? A. What other alternative would he have? 2481

Q. What other alternatives would you mention? A. Being towed in.

Q. Then it was proper practice for him to put into Sydney, was it not? A. Halifax I would suggest.

Q. Or Halifax? A. Yes.

2482 Q. Would you criticise the master for putting into the Port of Sydney for coal under these terms of the bill of lading? A. I have already said that I am not in a position to answer that question.

Q. In a case like that——

The Court: They forget about the bill of lading?

The Witness: In the final resort of course, bills of lading have no value.

The Court: In an emergency you forget about those things?

2483 The Witness: Yes, sir.

The Court: You don't stop to read the bill of lading?

The Witness: No, sir.

Q. Mr. McNaught, when the whole bow of a vessel is pushed in as there is testimony that this was, it would be pretty difficult to put any plug in, wouldn't it? A. The S. S. *Richard de Larrinaga* arrived in this port with the whole of her bow fully loaded—the whole of her bow stove in, so much so that—no anchor was available—

2484 she was put on drydock with over 9,000 tons and a new bow fitted to her, so that the crushing of the bow forward of the collision bulkhead is not anything that cannot be dealt with very readily.

Q. You didn't plug that vessel? A. Didn't require plugging.

Q. You put on a new steel bow? A. Entirely.

Q. Exactly as they did to the *Willdomino*? A. Exactly.

Q. So you wouldn't plug a vessel when the whole bow was taken away or crushed in? A. Not if she is not making water.

Q. Well, assuming that she is making water as this vessel was, throughout the No. 1 hold— A. Then I should make an effort to plug as I have before stated. 2485

Q. Could you plug? A. My opinion is yes.

Q. Well, can you plug a jagged hole? A. Oh, yes.

Q. How would you plug such a hole? A. With blankets, probably; I have known a side of bacon to be used to plug a hole; it only requires a soft pad.

Re-direct examination by Mr. Carpenter: 2486

Q. Mr. McNaught, is this your diagram of the damage to the *Willdomino*? A. Yes, sir.

Q. Whereabouts is No. 1 hold? Where does it come in there? A. No. 1 hold probably comes in there.

Q. It is just the corner of the No. 1 hold that has been cut into? A. The specifications so show.

Q. The specifications say that, do they? A. Yes, sir.

Q. Now, assuming, Mr. McNaught, that you had before you a letter from the owner of the cargo dated August 26th—I show you now Exhibit C-12 from the Citro Chemical; what would you think it was the duty of the owner of such a vessel to do, having the cargo in No. 1 hold wet with water? 2487

Mr. Sprague: I think that question is improperly framed; I asked him what difference it would make in his judgment.

Q. All right; what effect would it have on your judgment heretofore given? A. If I received a

2488 letter such as this one is, I should be at pains to decide the question definitely as to what salvage value remained before making the decision.

Q. Is there any way of doing that except to remove the cargo? A. Naturally not.

Q. Now, then, if No. 1 hold had had a hole in it and this vessel had been plugged as soon as she reached New York Harbor, would it have been possible to have unloaded the lemons and the citrate of lime both at the same time? A. Only with divers.

2489 Q. No, I mean if the No. 1 hold had been plugged—put in drydock and the hole plugged, then put next to a pier, could you have unloaded both the citrate of lime out of No. 1 hold and the lemons out of the other hold, both at the same time? A. Certainly.

Q. Any reason why the unloading of the lemons could not have gone on simultaneously with No. 1, so that they would have had the whole thing unloaded? A. No apparent reason.

Objected to.

The Court: Permitted.

2490 *Re-cross examination by Mr. Sprague:*

Q. You could not have drydocked that vessel with a full cargo on board, could you? A. I drydocked a vessel with 9,200 tons dead-weight on board, and she was on the drydock for 12 days.

Q. Assuming that the consignees of this cargo knew that it was under water and made no statement whatsoever to the owners of the vessel requesting him to discharge this cargo by divers

or to plug it; would that make any difference in your opinion as to what should be done? A. No difference whatever; I should certainly ascertain what salvage value was in the cargo before deciding. 2491

Q. Well, how would you ascertain it? A. The only logical way to do it would be to take samples and have them treated or tested chemically.

Q. That's what these consignees did, took the samples and the test they reported was it was a total loss; what else would you have the ship owner do? A. Nothing, unless I had final definite communication from the owners of the cargo that it was a total loss. 2492

By Mr. Carpenter:

Q. Has the owner of the ship any duty to it, irrespective of what the owner of the cargo does? What is his duty when a vessel comes in with damaged cargo?

Mr. Sprague: I object to the question of any duty to the ship; that is for his Honor.

The Court: I sustain the objection in its present form. 2493

Q. You represent an owner of a ship, Mr. McNaught; if a vessel comes in with damaged cargo, and you get no information from the owners, whether it was damaged or not, or the extent of the damage; what do you think the prudent ship owner would do with regard to cargo under water in No. 1 hold, if it could be patched? A. I should certainly get after the owners of the cargo and ask them to declare their position.

2494 Q. Wouldn't you discharge the cargo first,—the vessel owner—in any event and tender it?

Objected to as leading.
The Court: Permitted.

A. In order to conserve the finances of the ship in the interests of the consignees, I would certainly endeavor to get together with the consignee and arrive at a mutually suitable method of handling the cargo.

Q. That's all.

2495 *By Mr. Sprague:*

Q. Did you ever have any ship come in that was under your care, loaded with citrate of lime, which had been under water for three weeks before it got here? A. Never.

Q. Did you ever have any similar chemical of that kind brought into port? A. No, sir.

Q. What cargo have you had come into port that has been under water for three weeks before it reached here? A. General cargoes,—typewriters.

2496 Q. Was this at the port of destination in those cases? A. One particular case was a return from a disaster after the vessel was some seven or eight days out.

Q. She came back to her port where she took her cargo? A. Yes, port of departure.

Q. Discharged her cargo and turned it back to the owners there? A. I do not know what became of the cargo.

Q. Did sne transship it? A. The cargo that was not damaged she transshipped.

Q. But the cargo that was under water? A.

2497

The cargo that was under water I understand was sold at auction.

Q. As salvage, was it not? A. As salvaged cargo.

Q. That's all.

CHARLES P. HAFFEY, recalled.

Direct examination by Mr. Carpenter:

Q. Mr. Haffey, I show you five original bills of lading, and ask you if these are all original bills of lading for Mediterranean shipments of citrate of lime and if they are the customary form of bill of lading used in Mediterranean shipments? 2498

Mr. Sprague: They are not the bills of lading in this case, are they?

A. These are on shipments that arrived since the *Willdomino.*

Mr. Sprague: I object to that, your Honor. 2499

Mr. Carpenter: The purpose is to show the customary routing of cargoes and then the customary clause in the bill of lading, and then later on to prove the meaning of that rather unusual clause in the bill of lading from Mediterranean ports.

Mr. Sprague: What difference does it make what other bills of lading have to say about it?

Mr. Carpenter: I want to show it is a

2500

customary clause in a customary bill of lading.

The Court: I will permit it.

(Respondent's counsel prays an exception, which is hereby allowed and sealed accordingly.)

(Sealed)

Q. Those are originals? A. Yes, sir.

Mr. Carpenter: I will have them marked
2501 in evidence.

(Received and marked Libellant's Exhibits, 11, 12, 13, 14 and 15.)

Cross examination by Mr. Sprague:

Q. Mr. Haffey, did you bring over with you the application that you made to the Custom House for the refund of duty that you told me yesterday you would bring? A. I looked through my files. I couldn't find the letter. I called up the broker; they gave me a letter here which is dated October
2502 6th, but the one that is referred to, August 24th, they claim they cannot find, that it was not attached to the entry.

Q. That was August 24th? A. Yes, sir; you see they refer to it in that letter. Now, they haven't been able to locate that; our original was attached to the entry but the other one was not attached. Our brokers advise me that this morning.

Q. Are you still trying to find that? A. Our brokers inform me they cannot find it in the Custom House.

Q. If you get it before the trial ceases, will

you bring it in? A. I will be glad to, but I 2503
doubt very much—yesterday I telephoned from here and then when I went back again I telephoned them this morning. Now, it may be possible that it went to Washington. I don't know, because I have another letter which we got in 1921 dated Washington, which leads me to believe that it went to Washington.

Q. That is a true copy of the letter you received? A. That is the only one we got.

Mr. Sprague: I will offer that in evidence.

2504

(Received and marked Claimant-1, February 27.)

Mr. Carpenter: I will offer this one from Pfizer to the Collector of Customs, dated October 6. You called for it and that is the only one he has got.

(Received and marked Libellant 16, Feb. 27.)

Q. That is a true copy, is it? A. Yes, sir.

2505

WILLIAM F. HAYWARD, called and sworn in rebuttal, for libellant, testified as follows:

Direct examination by Mr. Carpenter:

Q. Mr. Hayward, where do you live? A. 3004 Heath Avenue, New York.

Q. What is your business? A. Ship broker.

Q. How many years have you been in the ship broker business? A. Thirty years.

2506 Q. What is your firm? A. Simpson, Spence and Young.

Q. Now, in that thirty years experience have you handled any Mediterranean shipments? A. Yes ,sir; a great many of them.

Q. From Mediterranean ports to New York? A. Yes, sir.

Q. Ever handle any citrate of lime from Mediterranean to New York? A. Yes, sir.

Q. How much, a large number of shipments? A. Well, it doesn't come in great quantities; I should think about 100 tons on each ship, not more than that.

2507 Q. And for how many years have you been handling citrate of lime shipments? A. About fifteen.

Q. Well known commodity in the trade? A. Oh yes.

Q. Now, then, I show you a bill of lading, Exhibit L-4 in this case and call your attention to the fact that it says 168 casks of citrate of lime, S. S. *Willdomino* to New York, and ask if you are familiar with this particular clause: "Filling up only in ports on the way westwards of New York"; the other bill of lading says

2508 "westward to New York." Are you familiar with that clause? A. No, sir; we never had that clause on our bills of lading.

Q. You never had it on your bills of lading. Now, do you know what the meaning of that clause is?

Mr. Sprague: I object to that, your Honor, he is not familiar with it.

The Court: He doesn't use it on his bills of lading.

Q. Have you seen it on other bills of lading? 2509
A. No, sir.

Q. Never have. Now, do you know what ports vessels coming from Mediterranean ports to New York touch at?

Objected to.

A. You mean for cargo or for coal?

Q. For cargo?

Mr. Sprague: Depends altogether on the question of the bill of lading, whether the vessel is taking one man's cargo or a dozen men's cargoes. 2510

The Court: I sustain the objection.

Q. Do you know the usual and customary route from Mediterranean ports to New York?

Mr. Sprague: I object to that; this man is a ship broker and not a navigator.

The Court: He may know. I will permit it.

A. We would go naturally in geographical rotation.

The Court: Strike it out. He didn't ask you what you would do. 2511

Q. Do you know what is the usual customary route? A. Yes, geographical rotation.

Q. Now, then, is the port of Sydney, Cape Breton on the usual and customary route taken by vessels from Mediterranean ports to New York? A. No, sir.

Objected to.

The Court: Permitted.

2512 (Respondent's counsel prays an exception, which is hereby allowed and sealed accordingly.)

(Sealed)

Q. You said no, sir? A. No, sir.

The Court: Is it your contention that those places are?

Mr. Sprague: It is our contention that for the question of bunkering it is perfectly allowable under this bill of lading.

2513 The Court: That is a different question, but you admit, don't you, that it is slightly off the route?

Mr. Sprague: Oh, it is slightly off the route; there is no question about that.

Q. Is Lisbon, Portugal a place which is on the usual and customary route for vessels sailing from Gibraltar and other Mediterranean ports for New York?

Mr. Sprague: I object; she wasn't sailing from Gibraltar.

2514 Mr. Carpenter: She did; she was up at Gibraltar and then went to Lisbon.

Mr. Sprague: You took the cargo at Messina.

The Court: All right; amend the question; put the starting place in.

Q. Is Lisbon, Portugal, on the usual and customary route taken by vessels from Messina, Italy to New York by way of Gibraltar? A. No.

Cross examination by Mr. Sprague: 2515

Q. Well, Mr. Hayward, vessels do stop at Lisbon, don't they when they are coming from Mediterranean ports? A. Yes, sir, but it is not customary.

Q. Don't you know of vessels that make that a regular port of call? A. Yes, sir; but we don't consider it advisable to stop at too many ports; it doesn't pay.

Q. Oh! It is a question as to the number of ports that the ship owner decides to fill up at, isn't it? A. If he came from Messina, and took perishable cargo of lemons, if it was one of our 2516 vessels, he would go right to New York.

Q. Assume he has only part cargo and is under contract to carry another part cargo from Lisbon; he therefore goes in to Lisbon to get it? A. No, sir; once having taken lemons, we go right to New York.

Q. Well, the lemons aren't this case, Mr. Hayward. A. Well, I don't know anything about the case.

Q. There is nothing at all that is not customary, I mean there is nothing at all that is unwarranted in going to Lisbon, Portugal, to pick up part of the cargo, when you have had the 2517 other part from Mediterranean ports, is it? A. No.

Q. Many ships do it? A. Yes.

JAMES V. GURGE, called and sworn in rebuttal for libellant, testified as follows:

Direct examination by Mr. Carpenter:

Q. Mr. Gurge, what is your business? A. General freight manager Garcia Diaz.

2518 Q. How many years have you been in the shipping business? A. Ten—actual steamship business, ten years.

Q. And have you ever handled any shipments from Mediterranean ports to New York? A. Continually for five years; berth service five years.

Q. Have you handled any citrate of lime and lemons? A. No.

Q. Never handled citrate of lime? A. No.

Q. Lemons? A. No.

Q. Ever handled any general cargo? A. Onions.

2519 Q. I show you L-4 and call attention to this clause "Filling up only in ports on the way westwards of New York." Are you familiar with that clause? A. One similar to it.

Q. Is that used by your firm? A. Yes.

Q. What clause do you refer to as similar to it? A. "Steamer to have the privilege of bunkering and taking other cargo at a port or ports en route."

Q. Now, then, I will ask you this: Do you know what is the meaning of this clause "Filling up only in ports on the way westwards of New York"?

2520

Mr. Sprague: I object, your Honor; he has not had any experience with this clause; the clause that he says is similar——

The Court: He may know the meaning of it without having had any experience.

Mr. Sprague: I think the meaning is for your Honor.

A. The meaning that I would take is that the steamer has the privilege, after she leaves the

port of Messina to stop at any port on her regular route to New York, to take on extra cargo; in other words, if she wanted to leave Messina and go to Spain or Algeciras or Gibraltar to fill up the cargo she is entitled to do so. 2521

The Court: Do you object now?
Mr. Sprague: No objection.

Q. Have you been familiar with the routes of vessels sailing from Mediterranean ports to New York? A. Yes, sir.

Q. Now, is Sidney, Cape Breton, on the usual and customary route taken by vessels from New York to Mediterranean ports? A. It is not. 2522

Q. Is it a port at which they customarily or usually call, either for cargo or bunkers on the way from the Mediterranean to New York? A. No, sir.

Q. Whereabouts do vessels on their way from Mediterranean ports to New York take their last bunkers? A. Gibraltar usually; some the Azores.

Q. Sometimes in the Azores? A. If they desire to go there; usually Gibraltar.

Q. How about Halifax; ships from the Mediterranean to New York? A. Unusual. 2523

Q. Do you know what the prices of coal were in July of 1920, at Lisbon, and Gibraltar? A. The approximate prices, you mean?

Q. Yes. A. Yes, I think I do.

Q. What were they? A. The approximate price at Gibraltar was around $27—$28—$30 a ton.

Q. $27 or $28 at Gibraltar; what about at Lisbon? A. Lisbon is a very unusual port to take on coal.

Q. How about Ponta Delgada? A. Slightly higher.

2524 Q. How about Sidney-Cape Breton; you don't know that? A. No.

Q. Nor Halifax, Nova Scotia? A. No.

Q. And New York? A. New York the prices were around between $17 and $20—$23.

Q. And in August of 1920, July and August, 1920, was there plenty of coal in New York or not? A. Coal was not plentiful by any means.

Q. Were ships able to get their requirements to make the Mediterranean trip?

Mr. Sprague: I object to that unless he refers to foreign ships.

2525

Q. Foreign ships at New York; were they able to get coal for their foreign voyages? A. We only operated foreign ships and we always got our coal.

Q. Did you operate foreign ships in August of 1920? A. Yes, sir.

Cross examination by Mr. Sprague:

Q. What flag did your ships fly? A. Spanish.

Q. And do I understand you to say that you bunkered at New York? A. Every time.

2526 Q. For the round trip or for the voyage back? A. One way.

Q. One way; weren't there in 1920 restrictions on the giving of bunkers to foreign vessels in New York? A. We were never confronted with them.

Q. You were never confronted with them at the beginning of the year, at the time of the coal strike? A. We never were deprived of coal though.

Q. You had delays, didn't you, due to that?

A. If you waited too long to get your coal, yes, naturally. 2527

Q. It wasn't something that you could buy in the spot market, was it? A. Oh, no.

Q. Now, on what do you base these figures at Gibraltar, just on your general recollection? A. No.

Q. You don't buy the coal for your company's ships, do you? A. Yes, sir, we do.

Q. You yourself do? A. I order it half the time.

Q. I thought you were the freight manager? A. Yes.

Q. Well, the duties of freight manager don't include the purchase of coal? A. I said general freight manager. 2528

Q. So you do take care of that yourself? A. Yes.

Q. Now, your vessel being a Spanish ship, do you bunker at Spanish ports? A. Gibraltar.

Q. English ships often bunker at English ports, do they not? A. Bunker, I should judge at the most convenient port.

Q. Halifax is a convenient British port, is it not, for bunkering? A. According to where the ship is coming from; a ship coming from South America naturally would not go to Halifax. 2529

Q. But if she was coming from Lisbon to New York? A. No, I wouldn't say so; I think Bermuda would be better.

Q. Would it be all right for the ship to go to Bermuda to get bunkers on her trip from the Mediterranean to New York? A. It is according to conditions.

Q. Well, under that bill of lading that you have just mentioned? A. Where would he take on her bunkers after she left Messina?

2530 Q. Gibraltar. A. My opinion is she should take sufficient bunkers at Gibraltar to reach her destination.

Q. Assume she has a break down. A. That is a peril of the sea; the ship is entitled——

Q. Then she is entitled to go to the nearest port for coal, isn't she? A. Yes.

Re-direct examination by Mr. Carpenter:

Q. That is provided she took enough when she started? A. Oh, absolutely.

2531 Q. Suppose after her break down she put into Ponta Delgada where there was plenty of coal to be had, was it her duty there to fill up with sufficient to take her to her destination?

Mr. Sprague: I object to the question as to her duty.

Q. What is the proper practice? A. The proper practice—after she left Gibraltar she broke down and went to Ponta Delgada.

Q. She broke down and went to Ponta Delgada and there could have bought sufficient coal to take her to New York; what is the proper prac-

2532 tice? A. Take on sufficient coal at Ponta Delgada to go to New York.

Q. Do you know what margin of safety in the supply of coal a ship should carry? A. Why, it is customary usually to give it about 20—25% for her normal requirements.

Q. You put that in, provisioning ships, do you? A. Yes.

Q. 20—25% above normal? A. 25%, we figure it; enough for four or five days extra steam.

Q. May I ask why you do that? A. She is

liable to have a hard trip at sea; she cannot run short of coal and founder around. 2533

Re-cross examination by Mr. Sprague:

Q. Vessels do run short of coal and founder around, don't they? A. Rough weather; very seldom in summer time.

Q. Then they put into the nearest port? A. Naturally.

Q. Under this bill of lading, in your opinion, was not the *Willdomino* entitled to go to Halifax for bunkers? A. You will have to leave that to the court. 2534

Q. Assuming that at Ponta Delgada the master and the chief engineer took what they considered to be sufficient coal to take them to New York and then after that suffered slow speed due to various weather influences, and in order to avoid running out of coal, put into Halifax or Sidney for bunkers; would not that be proper practice on her part? A. If the master considered he had sufficient coal on board to reach New York, he certainly had the privilege to go to any place he saw fit, the nearest place to save the cargo and save the ship in the interests of all concerned. 2535

Mr. Carpenter: I want to offer in evidence the cablegrams and telegrams which were produced on our subpoena the last time we had this hearing here, as being all of the telegrams and cables passing between the *Willdomino* and the Williams Steamship Company while the vessel was on this particular trip. I have them all here in order and I can assure counsel they are all that we got from him. I want

2536 counsel to state, if he will, whether or not there were any other telegrams or cables that passed between the ship and the Williams Steamship Company on this particular voyage.

Mr. Sprague: Not to my knowledge.

Mr. Carpenter: I now call on you, with that statement, to produce the original Exhibit F introduced when the master was examined.

Mr. Sprague: Well, I have the copy here that was introduced. I don't know anything about the original.

2537 Mr. Carpenter: The original Exhibit F, when the master was examined——

The Court: When was the master examined?

Mr. Sprague: Here is the one he put in.

The Court: When was the master examined?

Mr. Carpenter: He was examined in October, 1920, your Honor.

The Court: Where?

Mr. Carpenter: New York. This reads: "From the Willshipco, dated June 15,

2538 1920. From New York to Master SS. *Willdomino*, care Agamemnon, Gibraltar. Your coal requirements excessive cost of bunkers Gibraltar very high make accurate measurement remaining bunkers if not enough to make North Sidney take only enough to reach there cut down consumption in every way if fuel runs short reach coast cut out one boiler Willshipco. Exhibit F."

The Court: Is that the original?

Mr. Carpenter: That is the original re-

2539

ceived by the master, so he said. I now call on counsel to produce the copy of that telegram from the office of the Willshipco.

Mr. Sprague: All I can state is that these were the cables that were handed to me in response to this subpoena. As long as he has the original, I don't see why he should want the copy.

Libellant rests in rebuttal.

Mr. Sprague: Before you rest, I should like to cross examine further Dr. Saarbuck.

2540

DR. SAARBUCK, recalled.

Cross examination by Mr. Sprague:

Q. Dr. Saarbuck, yesterday in your statement of the experiments you made with the citrate of lime and the sea water in May, 1921, I believe—will you state how you mixed the water with the citrate of lime; did you put the citrate of lime in a bag or a barrel or something of the kind and immerse it in the sea water or mix the two up? A. I mixed the two up without using any bag—used a stirrer to get it all mixed. 2541

Q. Did you stir it up at all? A. Yes, certainly.

Q. Did you stir the mass up at any time while it was being experimented with? A. I stirred it up every week before I took a sample.

Q. So it was stirred up at least six times by you? A. Yes, sir.

Q. That gave the sea water clear access to all parts of it? A. Yes.

Q. Of course you know that the citrate of lime in the hold of the ship was encased in large casks

2542

containing anywhere from 1,500 to 1,700 pounds? A. Yes.

Q. Where would the action of the sea water be greatest, where the citrate of lime was encased in casks or where the citrate of lime was mixed with the water and then stirred up occasionally as you did? A. The action was greater when it is stirred up.

Q. That's all.

Mr. Carpenter: I think I would like to offer that map in evidence, your Honor please.

2543

Mr. Sprague: No objection.

(Received and marked Libellant 8.)

(Diagram used by Mr. McNaught is marked Libellant 9.)

Mr. Sprague: I assume from the statement of counsel yesterday that he would not be through at one o'clock. Consequently such witnesses as I have in rebuttal are coming at two o'clock. Shall we proceed and read some of the depositions?

2544

The Court: Yes.

Deposition of James Beebe read.

RECESS.

AFTERNOON SESSION.

The Court: Perhaps if your other witnesses are here you had better go on with them.

JOHN P. SIMMONS, recalled in sur-rebuttal, testified as follows: 2545

Direct examination by Mr. Sprague:

Q. Professor Simmons, in the course of your experiments did you determine how much water citrate of lime would absorb? A. The citrate of lime——

Q. Sea water. A. The citrate of lime two pound samples that we worked with absorbed 50% of water.

Q. Can you determine, then, what the citric acid content would be of citrate of lime in the ordinary condition, having about 64% citric acid 2546
content when it has absorbed 50% of the sea water? A. The addition of the water alone, 50% of water to calcium citrate containing 66% of citric acid, to begin with, would reduce the content of citric acid to about 32% without any loss of the citric acid; the addition of the water simply diluting it.

Q. That is, there would be a larger volume and therefore the percentage of citric acid would be less, is that it? A. Would be a greater weight.

Q. What would you say as to the method proposed by Dr. Grunenberg yesterday of killing the 2547
germs by inserting a pipe in these barrels of citrate of lime and forcing sulphur dioxide through that pipe? A. I believe it would be absolutely impossible. To insert a pipe in the first place, the pipe would have to be of some strong material such as iron; to drive the pipe through wet citrate of lime would plug up the pipe; if the pipe were driven half way in, approximately a foot and a half, it would stop the pipe with the mud of the citrate of lime, and if then sulphur dioxide gas were connected with the pipe, even

2548 though the sulphur dioxide be in a liquid form in the cylinder, in my opinion the pressure would not be nearly sufficient to drive the plug out of the pipe and force its way into the mass of citrate of lime.

Q. What is the pressure of sulphur dioxide? A. The pressure that sulphur dioxide liquid exerts at 20 degrees C. is a little over three atmospheres.

Q. In order to obtain the deadening effect of the sulphur dioxide upon the bacteria what, in
2549 your opinion, would be necessary to be done in connection with this citrate in the casks? A. The citrate of lime would have to be removed from the casks, would have to be spread in rather thin layers either on the floor to a gastight compartment or on shelves. The reason why a gas tight compartment would have to be used is that sulphur dioxide gas is an extremely disagreeable gas to handle. It is a gas that has the odor of burning sulphur. It is extremely irritating to the mucous membranes of the throat and nose, and when it gets out and comes in contact with water forms sulphurous acid and sulphuric acid which
2550 are extremely corrosive. And to liberate sulphur dioxide gas in anything but a gas tight room wuld be dangerous.

Q. Could that be done in the ordinary warehouse or factory? A. No.

Q. Something was said yesterday about sea water being sterile. What is your opinion as to that? A. From reading and conversation——

Mr. Carpenter: I object to that. That is a question of fact, not a question of expert opinion. It either is or is not sterile.

2551

Q. Well, is it sterile? A. It is not sterile. Sea water to an approximate depth of 50 feet is alive with organisms.

Cross examination by Mr. Carpenter:

Q. What kind of organisms, animal or what? A. Animal and vegetable.

Q. You never handled citrate of lime in your actual experience, did you? A. I have recently, yes.

Q. I mean you never handled a cask of it and tried to stop fermentation with a pipe leading to a tank of sulpho-dioxide, did you? A. I think I wouldn't have to in order to form an opinion. 2552

Q. I didn't ask you whether you would have to; I asked you whether you had. A. No, I have not.

Q. Now, you don't mean, do you, that the sulphur dioxide that comes in a tank couldn't be used to insert it into a cask of citrate of lime? A. I mean that it comes by a tank; I mean a cylinder; the sulphur dioxide cylinder that come in commerce are usually about 18 inches long and about four inches in diameter; that is what I mean by cylinder, a tank. 2553

Q. It comes under pressure in those cylinders? A. Pressure about three atmospheres.

Q. How many pounds to the square inch? A. Three atmospheres is about 15 pounds to the square inch.

Q. If you had such a cylinder and a pipe leading from it, stuck it in a barrel, you could turn it on and it would escape? A. I believe not.

Q. That's all.

GEORGE T. WILLIAMS, called in sur-rebuttal, tes-
2554 tified as follows:

Direct examination by Mr. Sprague:

Q. Mr. Williams, as I recall your direct examination, some three weeks ago, you stated that you had had some experience as a ship builder, is that correct? A. Yes.

Q. How many years' experience? A. Seven.

Q. Did you examine the *Willdomino* while she was on dry dock, Tietjen & Lang's yards, in September, 1920? A. Yes, sir.

Q. How often were you over there? A. Four
2555 or five times.

Q. Did you see the hole in her hull caused by the stranding? A. Yes.

Q. State whether or not that could be feasibly plugged as described by Mr. McNaught, whose testimony, I believe, you heard this morning? A. I don't think it could be.

Q. What are your reasons for that statement? A. The ragged condition of the opening, having been crushed back about eight feet from the stem of the vessel; in other words, the entire lower part of the bow was crushed back from the impact of the rock when she struck it.

2556 Q. Well, was the extent of the damage sufficiently localized to allow that plugging, in your opinion?

Mr. Carpenter: I object to that; facts can be stated from which the court can draw the conclusion.

The Court: Change the form of that.

Q. How far did that damage extend? A. You mean the diameter of the hole or the crushing of the materials?

2357

Q. The diameter of the hole; I have understood you to say that the crushing was for eight feet back? A. About that, yes, sir.

Q. How great was the diameter of the hole? A. Oh, it was probably four to five feet in diameter but not in a true circle and very jagged, the edges of it.

Q. Well, is it your statement that in your opinion that could not be plugged satisfactorily? A. That is my opinion based on one reason, that when you have an iron like that that is only ⅝ of an inch thick—perhaps ¾ of an inch—and it is crushed in and of a certain diameter, when you drive so-called wooden plugs in there you have nothing for them to hold it; you have to plug perhaps five feet long; you have ¾ of an inch on the outside of your plugs so I cannot imagine from my ship building experience what is going to hold those plugs from wiggling around and becoming loose and falling out, even assuming you got them fairly tight.

2358

Q. Even assuming that could be done, what do you say as to Mr. McNaught's statement that the cost would not be more than $250 if done in dry dock?

2359

Mr. Carpenter: I object to that; he cannot characterize Mr. McNaught's testimony.

The Court: I sustain the objection.

Q. I will put it in this form; do you agree with Mr. McNaught's statement that it could be done for $250? A. I do not.

Q. Have you any opinion as to what it would cost? A. I think not, for the reason that you would perhaps try it many times before you fin-

2560 ally gave it up and made a failure of it, in addition to the excessive cost in those days of dry-docking a vessel.

Q. What was the cost of dry docking in those days? A. I think at that time about 16 cents a ton on the gross registry.

Q. And the gross registry of this ship was about 6,000, was it? A. About that, I should think; she was 4,200 net registry.

Q. That would bring the dry docking charge something over $900 a day, is that correct? A. Around about $960 a day.

2561 Q. Now, Mr. Williams, do you know, in your experience of any case where temporary repairs have been made at the port of destination of a vessel when there are still permanent repairs to be made? A. I have never heard of that being done.

Q. Of course you are familiar with that being done where the vessel goes into a port of refuge in order to enable her to go forward? A. Yes, sir.

Q. Mr. Williams, I show you this Claimant's Exhibit F, taken on Captain Beebe's testimony,

2562 and ask you have you seen that cable? A. I think I seen that, yes, sir.

Q. Now, what were the instructions that you had given your masters in regard to coaling of these British vessels? A. We had previously given instructions to our vessels coming out of the Meditterranean that if necessary, they put in to North Sidney for bunkers.

Q. Was there any purpose in that? A. Well, we considered it more of a certainty in their getting bunkers there.

Q. And why did you consider it more of a cer-

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tainty in their getting bunkers? A. Well, there was a great deal of difficulty along about that time in getting bunkers for foreign steamers at North Atlantic ports, that is what we call——

Q. Now, what was your purpose in sending this telegram, Claimant's Exhibit F, to the master of the vessel? A. I would gather from that that we had had some advices from the master stating he wanted a certain number of tons of coal at Gibraltar, and that I probably advised him to remeasure his bunkers to be certain of his requirements. I probably had in mind the amount of coal—— 2564

Mr. Carpenter: I object to that "probably"—I want the truth.

The Court: Strike out "probably."

A. Having in mind the amount of bunkers that he took aboard on sailing for Marseilles, which as I recall it were intended to cover the round trip bunkers; having further in mind that engineers and masters are much inclined to take an excessive amount of bunkers, regardless of cost as a further safety in their operating of ships. 2565

Q. Well, this was more or less of a caution as to economy, was it? A. Yes, sir.

Q. A master and chief engineer are required to take sufficient bunkers from any port, aren't they? A. I think they are not only required to; they always do it to protect their certificate as master and chief engineer.

Q. What do you mean by protect their certificate? A. Well, they receive a certificate from the Government as to their qualifications, and if they would proceed on a voyage with insufficient

2566 bunkers, they would stand a good chance of losing their certificates by the British Board of Trade and therefore lose their positions. We have no means of forcing a master or chief engineer to proceed with a stipulated amount of bunkers, if he doesn't want to; if he doesn't consider his vessel safe to make the voyage or doesn't consider it a sufficient amount of coal to make the voyage.

Q. He is the judge of that matter, isn't he? A. Absolutely.

Q. That's all.

2567 *Cross examination by Mr. Carpenter:*

Q. You mean he is the judge if the owner permits him to be the judge; is that right? A. Sir?

Q. You mean he is the judge of his own requirements unless his owners override him? A. He doesn't have to proceed to sea if the owners or anyone else would override him.

Q. You agree, don't you, that it is the prerogative of the owner to dictate to the master how much coal he shall buy? A. Not below the safety standpoint, no, sir.

Q. Then why did you tell this man to proceed
2568 with only enough to get to the other coast and if necessary, if his coal wouldn't hold out, to come in on one boiler? A. I didn't say to come in on one boiler; I said to cut out one boiler.

Q. Well, why did you say cut out one boiler if you didn't mean he should come in on one boiler? A. That is economy from an engineering standpoint.

Q. Economy in what? A. Saving of coal.

Q. You mean by this telegram then for him to take only enough coal to approach the coast on two boilers? A. No, sir.

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Q. And then that if his fuel runs short when he reached the coast, to cut out one boiler and just skin in on one boiler, didn't you? A. No, sir.

Q. What do you mean, then by this language, that "if fuel runs short reaching coast, cut out one boiler"? A. I meant he would come in on two boilers and save his fuel as far as possible if he were running short before he reached North Sydney.

Q. Well, why did you tell him to get only enough coal to take him to Sydney and then if he hadn't quite figured it accurately, to get enough to come in on one boiler only? A. The intention of that was that if he should run into bad weather and as he was approaching the coast began to run short of coal, that he should cut out one boiler, which is practical from an economical engineering standpoint. 2570

Q. Fine. Now, just tell us what was the cost of coal at Gibraltar at this time? A. Well, it varied in dollars in those days from thirty to forty a ton.

Q. In English pounds, how much was it at Gibraltar? A. Oh, it was usually figured in shillings; I forget now, but I think as high as 255 shillings. 2571

Q. 255—20 shillings to a pound in those days? A. Yes, sir.

Q. Now, what was the price of coal in Canada money at Sydney? A. Well, at that time from seven to nine a ton.

Q. Canadian money? A. Yes; you always talk Canadian money up there.

Q. Canadian money wasn't as much as Ameri-

2572 can money at that time, was it? A. There was some discount; it varied.

Q. What was the price of coal at Ponta Delgada a ton; what did your master pay for it up there, the 250 tons he bought at Ponta Delgada? A. I don't know, but I think about thirty-three, as I recall it.

Q. Thirteen pounds, some shillings, wasn't it? A. Well, I always worked it out from my own standpoint in dollars.

Q. About $33 a ton? A. I think something like that.

2573 Q. Now, then, the difference in the cost of coal is what influenced you to send this cable to the master of your ship, wasn't it? A. The difference in cost?

Q. Just answer yes or no. A. Yes.

Q. And you wanted him to get across to this side where he could get coal at the cheapest possible port, is that right? A. Practically the only port he could get it at.

Q. What do you mean by that? A. North Sydney.

Q. You mean get it at that price? A. No, sir,

2574 get it at all.

Q. You see here in the first part of this telegram "your coal requirements excessive". What were his coal requirements at the time you sent this cable? A. I don't know. I presume they were a great deal more than myself and our port engineer figured he should require; that is why we asked him to remeasure his bunkers.

Q. You had information from him as to what his coal requirements were when you sent this cable? A. I presume we did.

2575

Q. How many tons was it; that is what I want to know? A. I don't know.

Q. Where is your telegram? A. I haven't got it, sir.

Q. He sent you a telegram or wireless? A. I presume he did send us a cable.

Q. And that would show how many tons he wanted? A. I presume so.

Q. You haven't got that cable? A. No, sir.

Q. No idea where it is? A. No, sir.

Q. When did you see it last? A. I don't know that I ever saw it; I am presuming from this cable to him that he must have sent us one.

2576

Q. "Cost of bunkers Gibraltar very high"; you knew at the time it was high there? A. Well, we knew that practically all the time and at that particular time we may have asked a coal broker in New York.

Q. What was the cost of bunker coal in New York at that time? A. I don't believe I could say.

Q. Was it as high as $9? A. I would imagine it was, yes, sir.

Q. Certainly wasn't more than $9, was it? A. I don't know; the difficulty was to get it at all.

2577

Q. Now, you stressed here that he make accurate measurement of his remaining bunkers? A. Yes, sir.

Q. What did you mean by that? A. Well, we were of the opinion that he may have miscalculated the amount of bunkers on board at the time he sent us a cable.

Q. And you wanted him to figure out to the pound how much it was going to take him to get from Gibraltar to North Sydney? A. No, we

2578 wanted him to refigure the estimated amount of bunkers he had on board at that time.

Q. For what purpose? A. So we would have better information; we were of the opinion here that he had miscalculated the amount of bunkers on board. We didn't consider he should have consumed so much up to that time.

Q. I see; and the idea was what? A. To be governed by the amount of bunkers that we would authorize at Gibraltar after he got there.

Q. And you didn't have any idea of authorizing
2579 him at Gibraltar to buy more than enough coal to take him to North Sydney, did you? A. I think that was our idea.

Q. And you knew that North Sydney wasn't as far from Gibraltar as New York, didn't you? A. Well, wouldn't be a great deal of difference.

Q. There wouldn't? What would you say that difference was? A. Well, I wouldn't know without checking up, but I wouldn't think it was a great deal of difference.

Q. Five hundred miles? A. I wouldn't think so.

Q. That is a fair approximation, isn't it? A.
2580 I couldn't say.

Q. Well, would you say that is high or low? A. Well, I would think it was less than 500 miles.

Q. Would you say it was 400 miles nearer New York than— A. Now, do you mean is it nearer from Gibraltar to North Sydney than it is from Gibraltar to New York? You mean the distance is shorter?

Q. Yes, of course. A. As I say, I don't know without looking at the map offhand. I would think perhaps three to four hundred miles.

2581

Q. And you knew at the speed that that vessel had been making, it would take about two or three days to make that difference of three or four hundred miles, didn't you,—two or three days in the sailing of that vessel? A. When she was at Gibraltar we expected her to make her usual speed of about ten knots.

Q. At any rate, you didn't intend to allow your master to buy more than enough coal to get to Sydney and get there on one boiler at that, if necessary? A. That's the way that cable looks to me that we had that in mind at that time.

2582

Q. And the only reason that you cabled that way to him was to save the cost of coal; isn't that so? A. To endeavor to operate as efficiently as we knew how.

Q. And by that you mean with a saving of as much to the owners as you could? A. Efficient operation of the ship.

Q. You knew all about the Nova Scotia coast when you sent this cable, didn't you? A. I did know there was a Nova Scotia coast, yes, sir.

Q. You knew that it had a reputation for danger, too, didn't you? A. No, sir.

2583

Q. Did you ever hear that? A. No, sir. Heard it here this morning by some witness.

Q. You never heard it from any other source? A. Why, no; there is dozens of ships every year going into North Sydney for coal and carrying cargo in and out of those ports.

Q. And you know that every year dozens of ships go ashore on those coasts, don't you? A. I presume there are some disasters.

Q. How much did you pay at North Sydney for the 60 tons of coal that your master took on board there? A. I don't remember.

2581

Q. You did take on 60 tons there, didn't you? A. I believe something like that.

Q. You don't remember what he paid? A. No, sir.

Q. When you sent this cable to your master directing him to go to Sydney, didn't you intend that he should at North Sydney take on bunkers for the return trip to Europe? A. No, sir. We hadn't any voyage fixed.

Q. Well, for the next trip that this vessel should make to sea? A. No, sir.

2585 Q. You didn't intend that he should take on enough coal to go to sea again? A. No, sir, hadn't any next voyage in mind.

Q. Did you intend that he should take on enough coal at North Sydney to coal some other ship of yours from an Atlantic port to sail? A. No, sir.

Q. Now, that is exactly what the *Willdomino* had done on the preceding trip, wasn't it? A. After we arrived at North Sydney, we did that, yes.

Q. On the preceding trip of the *Willdomino* you had her coal in North Sydney? A. Yes, sir.

2586 Q. For her requirements to get to New York and then sail again? A. No, to transfer coal to some other British steamers.

Q. That you owned? A. That we owned.

Q. Now, then, on that other trip that the *Willdomino* stopped at North Sydney, she was coming from the Baltic Sea, wasn't she? A. No, sir.

Q. Where was she coming from? A. St. Nazaire, France.

Q. That is considerably further north than Lisbon, isn't it, that port? A. Yes.

Q. St. Nazaire was the last place that this

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vessel stopped in Europe on the preceding trip? A. It is where she discharged her cargo and sailed for North Sydney under ballast.

Q. Then she wasn't in danger to any other cargo on that preceding trip when she stopped at Sydney for coal, was she? A. No, sir.

Q. No other cargo to be injured? A. No cargo aboard of her.

Q. Is that the only other time the *Willdomino* stopped at North Sydney while under your management and before this accident? A. I think so.

Q. Now, you gave us very carefully the dimensions of this hole in the shell or hold of the *Willdomino,* didn't you? A. Yes. 2588

Q. What was the size of the hole in No. 1 hold? A. There wasn't any hole there at all.

Q. This hole that penetrated the forepeak penetrated the hold of the vessel, too, didn't it? A. No, it sheared the bulkhead around the tank top so that the water leaked through.

Q. I see; now how big a leak was there to be plugged? A. Just as the bulkhead was moved and shifted a little bit and cracked some so that the water seeped through there.

Q. That is the only place where the water leaked into No. 1 hold, was it? A. The bilges may have been damaged a little; I couldn't see down there; they were full of dirt. 2589

Q. Now, your recollection is that you paid at Sydney about seven dollars a ton for coal to furnish the *Willdomino* in July, 1920? A. I don't know exactly the price. I stated I believed it was from seven to nine in those days.

Q. The approximate price, that is, about seven to nine? A. Approximately, Canadian money.

Q. What was the rate of exchange between

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Canada and the United States at that time? A. I don't know, probably six, eight, ten per cent.

Q. That's all.

Re-direct examination by Mr. Sprague:

Q. Mr. Williams, I show you this copy of cable which came from your file and which was marked this morning by the witness for the libellants, and ask you if that is a copy of the cable received from the master of the *Willdomino*? A. Looks like it.

2591 Q. Is that the cable that you had in mind when you said that you must have had a cable to which you replied by this Exhibit F? A. That seems to indicate that he has 450 tons of bunkers on board, and after consulting with our port engineer, it was our opinion that he should have had a great deal more and that is why we sent this cable asking to remeasure his bunkers, etc.

Q. Well, this is the copy of the cable that you suggested that you had in mind that you had received at the time you sent Exhibit F? A. Yes, sir.

2592 Mr. Sprague: I ask to have this cable marked in evidence.

Received and marked Claimant, 19.

Q. Now, you are familiar with the fact, are you not, that in going from one port to another, ordinary usage rqeuires an additional amount of bunkers to be taken to that required mathematically for the trip? A. You mean ordinary precaution?

Q. Yes. A. Yes, sir.

2593

Q. Did you follow such a usage in your firm?

Mr. Carpenter: I object, we are only concerned with what they did in this case and here they have given instructions.

Mr. Sprague: I am going to get to that right now.

The Court: Proceed.

Q. Did you follow that usage in this case? A. We did.

2594

Q. When you sent this message, did you intend that the master should use his own judgment as to the amount in addition to the bare amount to reach Sydney that it was necessary for him to take? A. Yes, sir.

Q. Had you had any ships in the Mediterranean before the *Willdomino* for cargo? A. Yes, sir.

Q. Had you called at Lisbon prior to this time that the *Willdomino* called there? A. Yes, sir.

Q. State whether or not Lisbon is a port of call for general shipments taking cargo from Mediterranean ports to New York? A. It is.

2595

Re-cross examination by Mr. Carpenter:

Q. Now, what excess of coal do you, as a ship owner say a vessel should carry going from a European port to New York, above her bare requirements, 25%, 20% in your opinion? A. Well, we usually figure in extra days—probably it is around 20%.

Q. 20% above her bare needs you figure for a margin of safety? A. Not what we call bare needs; what the vessel should do under her normal speed.

2596 Q. Now, then, why didn't you tell the master in this cable of making allowance for the extra supply of coal for a margin of safety instead of saying "Just take enough to reach the coast: cut down the consumption in every way and if fuel runs short reaching the coast, cut out one boiler"? A. We were satisfied that he would take a safe amount of coal to make North Sydney in his estimation.

Q. What do you mean? A. We didn't mean that he would only take the exact amount to
2597 reach the port; it is understood the masters and engineers, that they shall take in their judgment necessary allowance from the safety standpoint of the vessel.

Q. Then why didn't you tell him to do that? A. It wasn't necessary.

Q. Instead of relying on his good judgment in how much to use, you gave him directions? A. No, sir, it doesn't mean that.

Q. Then what was the purpose of this telegram; what did you mean by it? A. To take enough bunkers to make North Sydney.

Q. Barely enough to make North Sydney? A.
2598 He may have attempted to take enough bunkers to make some other ports; we only had to advise him where to bunker for; it is customary in our business.

Q. Is that the best explanation you can make? A. I think so.

Q. When you sent this cable to your master, did you mean that he should follow the directions contained in it, or not? A. Generally speaking, yes.

Q. You would have discharged him, if he hadn't

2599

done it, wouldn't you? A. Generally speaking, I may have.

Q. You sent this order to your master to be obeyed, didn't you? A. Generally speaking.

Q. That's all.

Re-direct examination by Mr. Sprague:

Q. The average speed of this vessel was what in operation? A. About 9½ knots.

Q. That's all.

2600

ALBERT C. COLEMAN, called and sworn in sur rebuttal, testified as follows:

Direct examination by Mr. Sprague:

Q. Mr. Coleman, you are the Mr. Coleman who has testified as port engineer of the Williams Steamship Company? A. Yes, sir.

Q. Did you examine the *Willdomino* when she was in drydock at Tietjen & Lang's? A. Yes, sir.

Q. How many times did you examine her? A. I cannot say how many, but several times. 2601

Q. State to the Court what the amount of damage was to the hull. A. In extent?

Q. Yes. A. The shell plating, the bottom shell plating was pushed up and back and broken to about the second floor aft; the forepeak bulkhead in No. 1 hold, the floors were all pushed back like that, and up; the forepeak frames were broken and all the stuff around it. The stem piece was broken and a piece about 8 feet long

2602 was gone, lost; the tank top in No. 1 hold was broken, pushed back and bent and the forepeak, the lower part of the forepeak bulkhead was busted and pushed into the hold; so there was a tangled mass of plates and frames and angles in the forepeak and under the forepeak in the hold.

Q. Driven right back into the hold? A. Into the hold.

Q. Well, now, Mr. McNaught has testified from an investigation—examination of the specifications, that that hold could be plugged at a slight
2603 expense of say $250 if she was in drydock, or $700 if it was done by divers when she was in the water; what is your opinion about that? A. You ask me could the holes be plugged?

Q. Plugged? A. No, sir.

Q. Why not? A. It wasn't a hole at all; it was a great big—it wasn't a hole in the sense that I call a hole; it was an opening.

Q. Well, just explain that a little more in detail. A. Well, a hole in a plate would be a hole of some kind of roundness or square kind of a hole, through one or two plates, where this was an opening many feet in area, I should say eight
2604 —if it was measured across fore and aft it would have an area of a couple of hundred square feet; you couldn't plug an opening 200 square feet in extent.

Q. That's all.

Cross examination by Mr. Carpenter:

Q. Now, how big was the opening in the No. 1 hold from the forepeak to the No. 1 hold? A. Do you want it in square feet?

2605

Q. No; describe it any way you can. A. Well, as I told you the tank top plates were pushed back and bent back to the second floor; that is about two feet, three inches and the forepeak, lower plate, forepeak bulkhead was also pushed in all the way across the fore part of the hold and that is about——

Q. How big was that opening from the forepeak into the No. 1 hold? A. Between the peak and the No. 1 hold—let's see—20 square feet, roughly, of area.

Q. 20 square feet of area? A. Yes, sir.

2606

Q. Where one plate was pushed in? A. Several plates were pushed in; the lower part of the forepeak bulkhead was pushed into the hold and the tank top plating was pushed up and into the hold and where they join together was separated and a long way apart.

Q. Just the joints pulled apart? A. The joints and angles and things that held them were pushed apart and a long way from each other.

Q. That is the same point that Mr. Williams indicated on his examination? You mean the same thing that he indicated? A. The same point?

2607

Q. Yes. (Same question and same answer.) A. I am speaking about the hole in No. 1 hold which you asked me about.

Q. That is in the bulkhead between the No. 1 hold and the forepeak? A. Between the double bottom, the forepeak and the No. 1 hold.

Q. That's all.

ALEXANDER MACWATT, called and sworn in sur-
2608 rebuttal, testified as follows:

Direct examination by Mr. Barrett:

Q. What is your business, Mr. Mac Watt? A. Ship engineer, surveyor.

Q. How long have you been at that business? A. Five years with Lloyds.

Q. Prior to that what was your experience? A. Marine engineer.

Q. And with whom are you now connected? A. Lloyds Register of Shipping.

Q. In 1920 did you examine the *Willdomino*?
2609 A. The repairs being finished, yes, sir.

Q. Did you see her before the repairs were started? A. Yes, sir.

Q. That was in what month, August or September, do you remember? A. Some time around August or September.

Q. Did you know what the cause of that damage was at the time, what the reported cause of the damage was? A. Because of striking something.

Q. Can you describe for us roughly what the condition of the bottom was when you examined
2610 her? A. Well, there was about seven or eight feet of the stem gone; the bottom of the forepeak, there was about eight or nine plates crushed and the bulkhead between the forepeak and No. 1 hold crushed and about,—either two or three frames in underneath the bulkhead crushed in the No. 1 double bottom tank.

Q. Did you at that time consider making temporary repairs to that ship? A. No, sir.

Q. Why not? A. Two shells were punctured;

2611

any temporary repairs made for taking that ship away from the port wasn't safe.

Q. Would temporary repairs have been a practical, feasible job to make? A. I don't think so, under the conditions, and size of the hole and the water that was in the ship when she came into port.

Q. Could you have made temporary repairs to that ship? A. Might be, by spending a lot of money, but I don't think it is a feasible proposition.

Q. Well, how long would it take before you would be sure that you had your temporary repairs made, that is, before the repairs are made, could you estimate how long it would take to make them? A. No, I wouldn't estimate that. 2612

Q. Why not? A. Because you would be taking a chance. You would have to get pumps and everything to try to pump the water out of the holds while you are fixing the outside and get divers down.

Q. You say you would be taking a chance; what do you mean by that? A. I don't think there was enough structural material in there after the crushing to batten her down enough to make a temporary repair; she was all broken all over from what we saw of her after she went into drydock. 2613

Q. Could you estimate the time it would take to make temporary repairs? A. Well, in a condition like that I don't think it was necessary to estimate on it, because the ship came in with so much water in her that there was hardly any temporary repairs considered at the time.

Q. Could you have estimated at the time—

2614

would it be possible to estimate the time when you would be sure that temporary repairs could be finished? A. No, I wouldn't give a figure on that.

Q. Could you tell us why? A. No, because it is too much of a hazard to take a chance on the ship in the condition she was in.

Q. Now, did you ever hear, during your experience,—were you ever on a job in which temporary repairs were made to a ship in order to allow the cargo to be discharged? A. No, sir.

2615 Q. That's all.

No cross examination.

(Counsel complete the reading of the depositions.)

Counsel for both parties move that all exhibits that have been referred to during the trial shall be marked for identification and received in evidence. So ordered.

2616

UNITED STATES OF AMERICA,
Eastern District of Pennsylvania,
Third Judicial Circuit, set:

I, Saunders Lewis, Jr., Clerk of the United States Circuit Court of Appeals, for the Third Circuit, do hereby Certify the foregoing to be a true and faithful copy of the original Vol. 1 of the record in this Court in the cases of: Citro Chemical Co. v. S. S. Willdomino, etc., No. 3036; Chas. Pfizer & Co. v. S. S. Willdomino, etc., No. 3037; Chas. Pfizer & Co., v. Conroy Steamship Co., Ltd., etc. No. 3038, on file, and now remaining among the records of the said Court, in my office.

In testimony whereof, I have hereunto subscribed my name and affixed the seal of the said Court, at Philadelphia, this fourth Day of August in the year of our Lord one thousand nine hundred and twenty-four and of the Independence of the United States the one hundred and forty-ninth.

Saunders Lewis, Jr., Clerk of the U. S. Circuit Court of Appeals, Third Circuit. (Seal of United States Circuit Court of Appeals, Third Circuit.)

Vol. II

TRANSCRIPT OF RECORD

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, [redacted] 1925

No. [redacted]165

STEAMSHIP "WILLDOMINO," HER ENGINES, BOILERS, ETC., PETITIONER,

vs.

CITRO CHEMICAL COMPANY OF AMERICA

No. [redacted]166

STEAMSHIP "WILLDOMINO," HER ENGINES, BOILERS, ETC., PETITIONER,

vs.

CHARLES PFIZER & COMPANY, INC.

No. [redacted]167

CONVOY STEAMSHIP COMPANY, LTD., OWNER OF THE STEAMSHIP "WILLDOMINO," HER ENGINES, BOILERS, ETC., PETITIONER,

vs.

CHARLES PFIZER & COMPANY, INC.

ON WRITS OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT

PETITIONS FOR CERTIORARI FILED SEPTEMBER 3, 1926

CERTIORARI GRANTED OCTOBER 27, 1926

(30,596, 30,597, 30,598)

(30,596, 30,597, 30,598)

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1924

No. 631

STEAMSHIP "WILLDOMINO," HER ENGINES, BOILERS, ETC., PETITIONER,

vs.

CITRO CHEMICAL COMPANY OF AMERICA

No. 632

STEAMSHIP "WILLDOMINO," HER ENGINES, BOILERS, ETC., PETITIONER,

vs.

CHARLES PFIZER & COMPANY, INC.

No. 633

CONVOY STEAMSHIP COMPANY, LTD., OWNER OF THE STEAMSHIP "WILLDOMINO," HER ENGINES, BOILERS, ETC., PETITIONER,

vs.

CHARLES PFIZER & COMPANY, INC.

ON WRITS OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT

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JUDD & DETWEILER (INC.), PRINTERS, WASHINGTON, D. C., MARCH 19, 1925

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Claimant's Exhibit 4—Affidavit of John J. Fitzgerald, marked in evidence at folio 547 877
Claimant's Exhibits 5, 6—Average agreement signed by Chas. Pfizer & Co., Inc., dated August 9, 1920 (2 sheets), marked in evidence at folio 552 878
Claimant's Exhibit 7—Guaranty of general average charges signed by various underwriters (3 papers), marked in evidence at folio 554 884
Claimant's Exhibit 8—Copy certificate of surveyors for Queen Insurance Company, dated September 16, 1920, marked in evidence at folio 585 886
Claimant's Exhibit 9—Arrival notice with rider, marked in evidence at folio 644 888
Claimant's Exhibit 10—Certificate of publication Journal of Commerce with rider, marked in evidence at folio 647 889
Claimant's Exhibit 11—Letter of Pfizer to Williams S. S. Co., dated September 2, 1920, marked in evidence at folio 649 891
Claimant's Exhibit 12—Letter of Citro Chemical Co. to Williams S. S. Co., dated August 26, 1920, marked in evidence at folio 650 .. 893
Claimant's Exhibit 13—Specifications for repairs of the "Willdomino," dated August 26, 1920 (3 sheets), and detail of work for repairs, dated August 26, 1920 (6 sheets), marked in evidence at folio 738 894
Claimant's Exhibit 14—Certificate of analysis of Sherer Bros., dated September 2, 1920, marked in evidence at folio 753 903
Claimant's Exhibit 15—Certificate of F. C. Rodman, cargo surveyor, dated December 29, 1920, marked in evidence at folio 759 904
Claimant's Exhibit 16—General average guaranty for Citro chemical shipment, dated August 10, 1920 (3 papers), marked in evidence at folio 799 908
Claimant's Exhibit 17—Certificate of analysis of Saarbach Laboratories, Inc., to Messers. Sherer Bros., dated September 2, 1920, marked in evidence at folio — 911
Claimant's Exhibit 18—Copy of letter of Geo. W. Ashworth, chief of division of customs, Washington, to collector of customs, New York, dated January 19, 1921, with rider attached, marked in evidence at folio — 912
Claimant's Exhibit 19—Cable of June 13, 1920, of Capt. to Wilshipco, marked in evidence at folio — 915
Claimant's Exhibit A—Pfizer bill of lading, marked in evidence at folio 810 916
Claimant's Exhibit B—Citro Chemical bill of lading, marked in evidence at folio 812 917
Claimant's Exhibit C—Certificate of Lloyd's Register of Shipping, dated January 11, 1920, marked in evidence at folio 816 918
Claimant's Exhibit D—Bill for expenses at Messina, including dunnage wood, marked in evidence at folio 820 919
Claimant's Exhibit E-1—Deck log of "Willdomino," April 29, 1920, to June 14, 1920, marked in evidence at folio 822 920-1

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Claimant's Exhibit E-2—Deck log of "Willdomino," June 15, 1920, to August 2, 1920, marked in evidence at folio 822 997

Claimant's Exhibit E-3—Deck log of "Willdomino," August 3, 1920, to August 22, 1920, marked in evidence at folio 822 1073

Claimant's Exhibit F—Telegram, dated June 15, 1920, Wilshipco to master of "Willdomino," marked in evidence at folio 829 1090

Claimant's Exhibit G—Certificate of survey at St. Michaels, July 3, 1920, marked in evidence at folio 846 1091

Claimant's Exhibit H—Diver's report and diagram, Halifax, July 27, 1920, marked in evidence at folio 883 1094

Claimant's Exhibits I-1 and I-2—Certificate of Lloyd's Register, Halifax, July 31, 1920, marked in evidence at folio 885 1096

Claimant's Exhibit J—Certificate of Lloyd's Register, Halifax, June 31, 1920, marked in evidence at folio 892 1098

Claimant's Exhibit K—Stowage plan of the "Willdomino," marked in evidence at folio 1094 1099

Claimant's Exhibit L—Photographic copy of compass observations, "Willdomino," marked in evidence at folio 1215 1100

Claimant's Exhibit M—Wireless message sent and received by the "Willdomino," marked in evidence at folio 1217 1101

Claimant's Exhibit N—Wireless message sent and received by the "Willdomino," marked in evidence at folios 1219, 57 1102

Claimant's Exhibit O—Wireless message sent and received by the "Willdomino," marked in evidence at folio 1220 1103

Claimant's Exhibit P—Wireless message sent and received by the "Willdomino," marked for identification at folios 1227, 70 1104

Claimant's Exhibit Q—Wireless message sent and received by the "Willdomino," marked in evidence at folio 1229 1105

Claimant's Exhibit R—Sketch showing expansion piece between H. P. and L. P. turbines on the "Willdomino," marked in evidence at folio 1235 1106

Claimant's Exhibit S—Engineer's log book, May 20, 1920, to August 9, 1920, marked in evidence at folio 1334 1107

Claimant's Exhibit T—Page 24 of pamphlet of Parsons Marine Steam Turbine Co., Ltd., showing photograph L. P. ahead and L. P. astern turbines, marked for identification at folio 1371 1279

Claimant's Exhibit U—Photograph of certificate of engines and boilers of Lloyd's Register of Shipping of War Convoy, dated May 23, 1919, marked for identification at folio 1403 1280

Claimant's Exhibit V—Certificate of seaworthiness of Salvage Association of London, dated Halifax, August 2, 1920, marked in evidence at folio 1487 1281

Claimant's Exhibit W—Pamphlet containing statute prescribing duties of port warden, Dominion of Canada, marked in evidence at folio 1495 1283

Claimant's Exhibit X—Copy of certificate of port warden, Halifax, Nova Scotia, July 27, 1920, marked for identification at folios 1500, 1515 1296

Claimant's Exhibit Y—Report survey, Salvage Association of London, Halifax, August 2, 1920, marked for identification at folio 1707 1298

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Claimant's Exhibit Z—Sketch of stowage plan of "Willdomino," marked in evidence at folio 1720 1310
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Claimant's Exhibit AA2—Photographs showing shoring of bulkhead at Halifax, marked in evidence at folio 1722 1312
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Libellant's Exhibit 2—Invoice for above shipment, marked in evidence at folio 163 1314
Libellant's Exhibit 3—Letter, Williams Steamship Co. to C. P. & Co., dated October 5, 1920, marked in evidence at folio 164 1315
Libellant's Exhibit 4—Bill of lading to Goldman, Sacks & Co., marked in evidence at folio 165 1316
Libellant's Exhibit 5—Invoice, June 10, 1920, marked in evidence at folio 166 1317
Libellant's Exhibit 6—Freight bill, August 14, 1920, marked in evidence at folio 168 1322
Libellant's Exhibit 7—Letter, delivery order, August 16, 1920, marked in evidence at folio 168 1323
Libellant's Exhibit 8—Letter, Williams S. S. Co., October 2, 1920, marked in evidence at folio 168 1324
Libellant's Exhibit 9—Copy of letter, October 4, 1920, marked in evidence at folio 168 1325
Libellant's Exhibit 10—Bull Line bill of lading, marked in evidence at folio 2501 1326
Libellant's Exhibit 11—Italian S. N. D. N. bill of lading, marked in evidence at folio 2501 1327
Libellant's Exhibit 12—Lloyd insular bill of lading, marked in evidence at folio 2501 1328
Libellant's Exhibit 13—N. G.-I. bill of lading, marked in evidence at folio 2501 1329
Libellant's Exhibit 14—Consulich bill of lading, marked in evidence at folio 2501 1330
Libellant's Exhibit 15—Cablegrams, offered at folio 2535, but not marked. Covered by stipulation and order, printed at page 872 and folio 2616 1331
Libellant's Exhibit 16—Copy of letter, October 6, Pfizer to collector of customs, maked in evidence at folio 2504 1357
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Claimant's Exhibit 1.

2617

(Physical Exhibit, not incorporated in this record pursuant to stipulation printed at end of this record, being first paper after Petition of Appeal.)

2618

2619

Claimant's Exhibit 2.

2620

(Photostat.)

2621

2622

Directions for Setting Up and Operating Pumps

In setting up a pump the first requisite is to provide a full and steady supply of water or other fluid. To accomplish this, observe carefully the following points:

The *suction pipe* should always be as short as possible and with few bends. Where bends are necessary they should be long radius. If a long suction line is necessary, make the diameter of the pipe as large as possible, so that pipe friction will not prevent a full water supply to the pump. In any case the suction pipe should not be smaller than the size given in the catalogue table.

In laying *suction pipe a uniform grade* should be maintained, thereby avoiding air pockets or summits. Grade the suction pipe toward the supply.

The *suction pipe* and its connections *must be tight*, as a very small leak will supply the pump with air to its full capacity so that little or no water will be obtained, according to the size of the leak. Before covering the suction pipe it is recommended that it be tested with a pressure of not less than twenty-five nor more than fifty pounds per square inch, to discover any leaks.

Wrought iron pipe may be used for suction pipe of small sizes, but cast iron flanged pipe is recommended for all sizes in which it can be obtained. When the bell and spigot pipe is used it should be laid with the direction of the current from the bell end towards the spigot end.

All valves in suction and discharge pipes should be *gate valves.*

Suction air chamber is an advantage on long or high suctions, and is particularly recommended for single pumps, on all fire pumps, and any pumps which are to run at high speed, especially for pumps of short stroke.

A *foot valve*, under these conditions, insures a quick starting of the pump by maintaining the pipe full of water and free from air. When a foot valve is used, see that the area of its valve seat opening is not less than the area of the pipe.

A *strainer* is always desirable, but not necessary when water is clear and free from foreign matter that would clog the valves and passages of the pump. The area of the strainer openings should be at least four times the area of the pipe, to equalize the friction of water through the small openings, some of which are liable to become clogged. When strainers are used they must be frequently inspected and cleaned.

Extreme caution must be exercised while pipe is being laid and pump connected to prevent foreign matter, such as sticks, waste and rubbish from entering the pipe. Chips from threading pipe, sand, etc., will quickly cut the cylinder, pistons and valves of a pump, doing more damage than years of proper use, or perhaps entirely disabling it.

A *check valve* in the discharge line close to the pump is an advantage in that it relieves the valves in the water cylinder from the weight of the water column when the pump is stopped and is also a great aid in starting against an existing discharge pressure.

A *priming* pipe connected to a supply above the pump or under pressure is a convenience for quick starting and a necessity for a fire pump and most large pumps of all classes.

Hot Water cannot be raised to any considerable height by suction. Thick liquids and hot water should always flow to the pump by gravity.

The *steam, exhaust, suction* and *discharge pipes* should be as straight and as free from turns as possible, and as large as sizes given in the catalogue table.

In connecting the steam pipe proper allowance should be made for expansion. A gate throttle valve should be placed in the steam pipe close to the pump. Means should be provided for draining this pipe before starting the pump.

A *heater* may be placed in the exhaust pipe to advantage.

To prevent freezing, drain the pump by opening all cocks and plugs provided for the purpose. In piping from these drips, valves should be placed close to the pump cylinders. The steam and water cylinder drips should never be connected into the same pipe unless a check valve is placed so as to close towards the water cylinder to keep it free from steam.

Erecting of a pump should be done by a thoroughly competent man.

Foundations suitable for the pump should always be provided.

All pipes should be properly supported so as to relieve the pump flanges from undue strains.

Keep the *steam cylinders* well oiled, especially just before stopping.

Keep the *stuffing-boxes* well and evenly filled with a good quality of packing. Don't screw them too tight.

Let the steam end alone if the pump begins to run badly, until fully satisfied that there is no obstruction in the water cylinders, water valves or pipes.

The pumps should be located, if possible, in a light, dry, warm and clean place and have good care. Do not overlook the importance of this last suggestion. Do not pull the pump apart to see what is inside, as long as it does its work well.

South Publishing Press, 197 Sutton Street, New York

WORTHINGTON

WORTHINGTON PUMP AND MACHINERY CORPORATION
115 BROADWAY, NEW YORK

W-305-D U. S. A. December, 1922

Claimants Ex. 85

PARTS OF

DUPLEX STEAM PUMPS

HAVING SHOP NUMBERS ABOVE 200,000

PISTON AND RAM PATTERN

VALVE PLATE STYLE

PRESERVE THIS FOR POSSIBLE FUTURE USE

SALES OFFICES AND REPRESENTATIVES

ATLANTA	435 Trust Co. of Georgia Bldg.	KANSAS CITY	825 Scarritt Bldg.
BIRMINGHAM	Am. Trust & Sav. Bk. Bldg.	LOS ANGELES	209-210 Higgins Bldg.
BOSTON 2	465 Massachusetts Trust Bldg.	NEW ORLEANS	533 Baronne Street.
BUFFALO	707 Iroquois Bldg.	PHILADELPHIA	1516 No. American Bldg.
CHICAGO	820 Old Colony Bldg.	PITTSBURGH	407 Oliver Bldg.
CINCINNATI	1503 First Nat'l Bank Bldg.	ST. LOUIS	701 Laclede Gas Bldg.
CLEVELAND	304 Kirby Bldg.	ST. PAUL	1017 Commerce Bldg.
DENVER	436 Seventeenth Street.	SALT LAKE CITY	1610 Walker Bldg.
DETROIT	839 Majestic Bldg.	SAN FRANCISCO	306 Sharon Bldg.
DALLAS	2001 Magnolia Bldg.	SEATTLE	203 Maynard Bldg.
EL PASO	510 Mills Bldg.	TULSA	424 North Boulder Street.
HOUSTON	425 Southern Pacific Bldg.	WASHINGTON, D. C.	426 Homer Bldg.

FOREIGN

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PARIS, FRANCE ..... Societe Francaise des Pompes et Machines Worthington, 1 Rue des Italiens.
MADRID, SPAIN ..... Cia de Bombas Worthington, Altamirano, 35.
MILAN, ITALY ..... Societa Anonima Worthington, 4 Via Dante.
SYDNEY, AUSTRALIA ..... Worthington-Simpson, Ltd., 32 Clarence Street.
CALCUTTA, INDIA ..... Worthington-Simpson, Ltd., 10 Clive Street.
ARGENTINE BRAZIL CHILE COLOMBIA CHINA JAPAN MEXICO JAVA

WORTHINGTON WORKS, HARRISON, NEW JERSEY

Established 1840

The Worthington Duplex Steam Pumps

VALVE PLATE STYLE

HAVING SHOP NUMBERS ABOVE 200,000

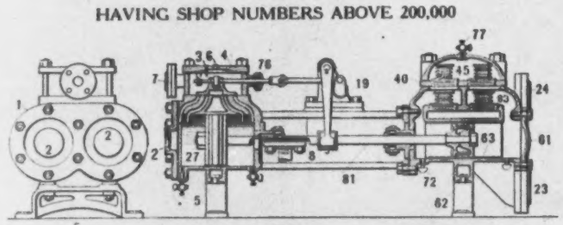


Fig. 1
PISTON PATTERN

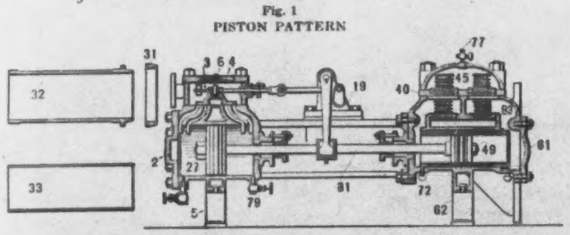


Fig. 2
PISTON PATTERN REMOVABLE LINER

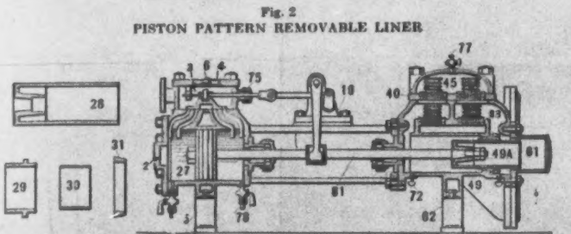


Fig. 3
PLUNGER AND RING PATTERN

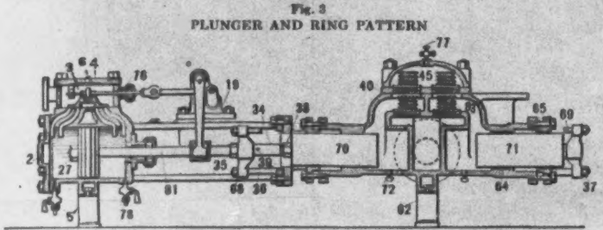
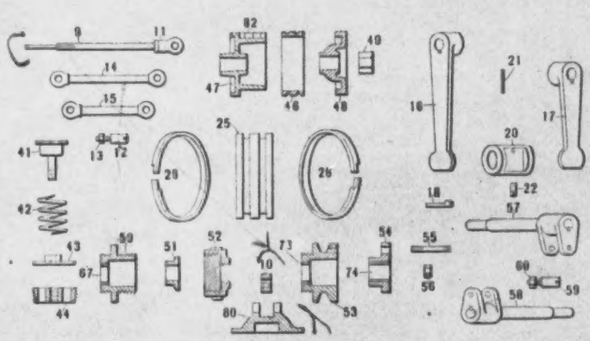


Fig. 4
RAM PATTERN



THE PUMP NUMBER,

which will be found stamped upon the *name plate*, should be given in ordering parts for a pump in use. Designate size by giving diameter of Steam and Water Cylinders and Length of Stroke. Designate parts wanted by Number as well as by Name.

LIST OF PARTS

1. Steam Cylinder.
2. Steam Cylinder Head.
3. Steam Chest.
4. Steam Chest Cover.
5. Steam Cylinder Foot.
6. Steam Chest Cover Plug.
7. Steam Flange.
8. Exhaust Flange (see Fig. 1).
9. Valve Rod.
10. Valve Rod Nut.
11. Valve Rod Head.
12. Valve Rod Head Pin.
13. Valve Rod Head Pin Nut.
14. Valve Rod Link, long.
15. Valve Rod Link, short.
16. Rock Shaft Lever, long.
17. Rock Shaft Lever, short.
18. Rock Shaft Key.
19. Cross Stand.
20. Spool.
21. Spool Pin.
22. Spool Set Screw.
23. Suction Screw Flange } (See Fig. 1).
24. Delivery Screw Flange }
25. Steam Piston.
26. Steam Piston Ring.
27. Piston Rod Nut.
28. Plunger } (see Fig. 3).
29. Plunger Ring. }
30. Plunger Ring Lining. }
31. Binder }
32. Piston Sleeve. } (see Fig. 2).
33. Sleeve Lining }
34. Plunger Connecting Piece }
35. Cross Head Check Nut } (see Fig. 4).
36. Side Rods }
37. Side Rod Nuts. }
38. Plunger Check Nut. }
39. Position Pin. }
40. Valve Plate.
41. Water Valve Guard.
42. Water Valve Guard Spring.
43. Water Valve.
44. Water Valve Seat.
45. Force Chamber.
46. Water Piston Packing Ring (Solid Brass or Babbitt).
47. Water Piston Body.
48. Water Piston Follower.
49. Water Piston Nut.
49a. Check Nut (see Fig. 3).
50. Screwed Stuffing-box.
51. Screwed Stuffing-box Gland.
52. Screwed Stuffing-box Nut.
53. Studded Gland Screwed Stuffing-box.
54. Stuffing-box Gland.
55. Gland Stud.
56. Nut for Gland Stud.
57. Upper Rock Shaft.
58. Lower Rock Shaft.
59. Crank Pin.
60. Crank Pin Nut.
61. Water Cylinder Head.
62. Water Cylinder Foot.
63. Water Cylinder Lining (see Fig. 1).
64. Water Cylinder Bushing } (see Fig. 4).
65. Water Cylinder Gland }
67. Stuffing-box Bushing.
68. Cross Head, Inside
69. Cross Head, Outside } (see Fig. 4).
70. Plunger, Inside. }
71. Plunger, Outside. }
72. Water Cylinder Drain Plug.
73. Studded Stuffing-box Throat Bushing.
74. Stuffing-box Gland Bushing.
75. Steam Chest Stuffing-box Gland (see Fig. 3).
76. Steam Chest Stuffing-box Nut.
77. Air Cock.
78. Blow Cock.
79. Globe Valve (see Fig. 2).
80. Slide Valve.
81. Piston Rod.
*82. Water Piston Packing.
83. Water Cylinder.

*State if for cold or hot water service.

Claimant's Exhibit 3-a.

2623

LLOYD'S REGISTER OF SHIPPING.

Cut—Lloyd's Register of Shipping, London.

Port NEW YORK

January 20th, 1920.

This is to Certify that I have Surveyed the H. P. & L. P. Turbines of the Steel Screw Steamer "Willdomino" 5755 tons gross register of Halifax whilst at this port in January, 1920 and that I have transmitted to the Committee of Lloyd's Register of Shipping, London, a Report stating 2624
that all recommendations made by me in connection therewith have been carried out to my satisfaction, and that I have Recommended that the record of *L.M.C. be retained in the Register Book in the case of this vessel.

JOHN S. HECK,
Engineer Surveyor to Lloyd's Register.
For C. J. Hudson & H. W. Wilkinson

This Certificate is issued upon the terms of the Rules and Regulations of the Society, which provide that:— 2625

"While the Committee use their best endeavours to ensure that the functions of the Society are properly executed, it is to be understood that neither the Committee nor the Society are under any circumstances whatever to be held responsible for any inaccuracy in any report or certificate issued by the Society or its Surveyors, or in any entry in the Register Book or other publication of the Society, or for any error of judgment, default, or negligence of the Surveyors, or other Officers or Agents of the Society."

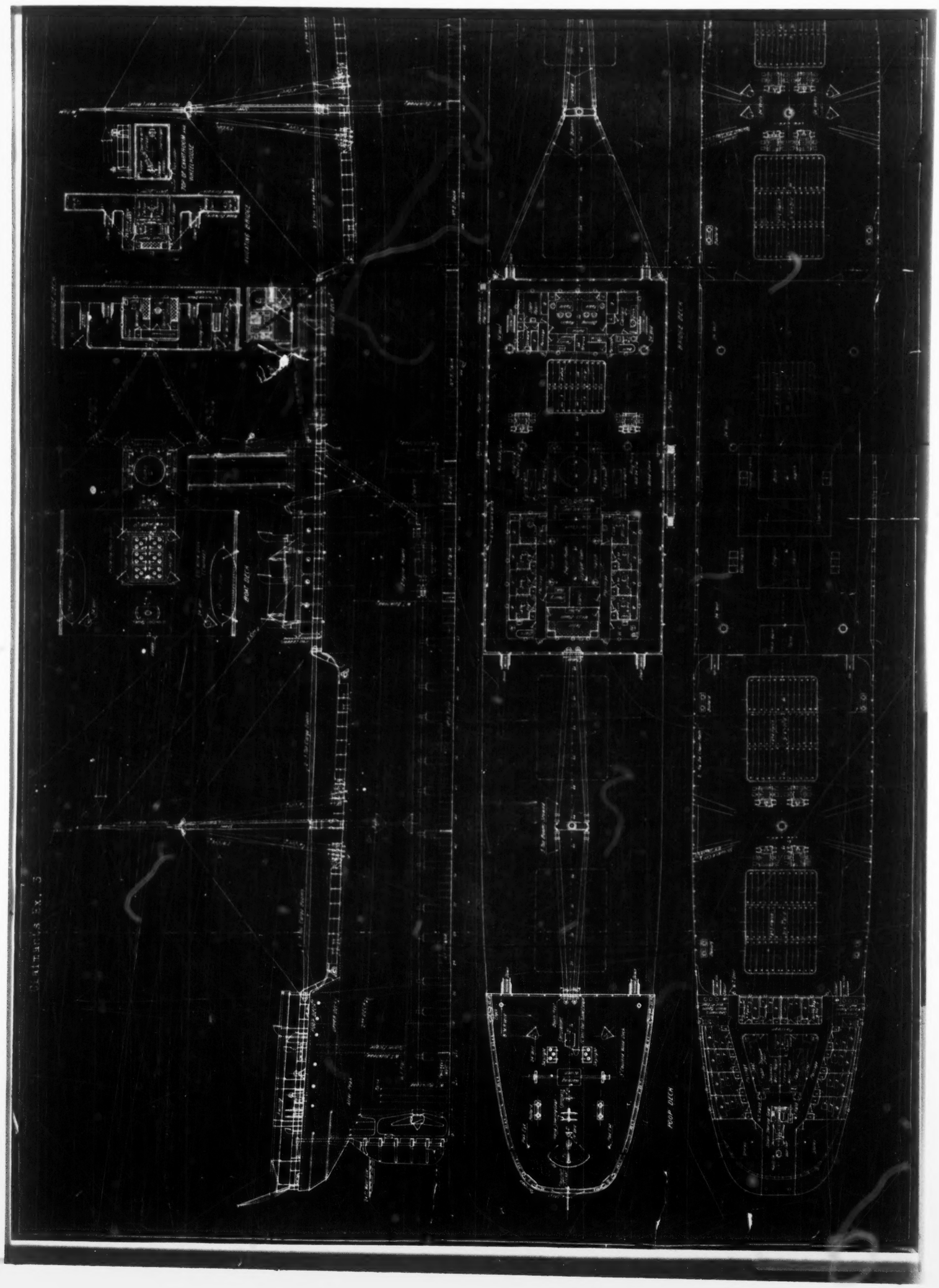
Claimant's Exhibit 3.

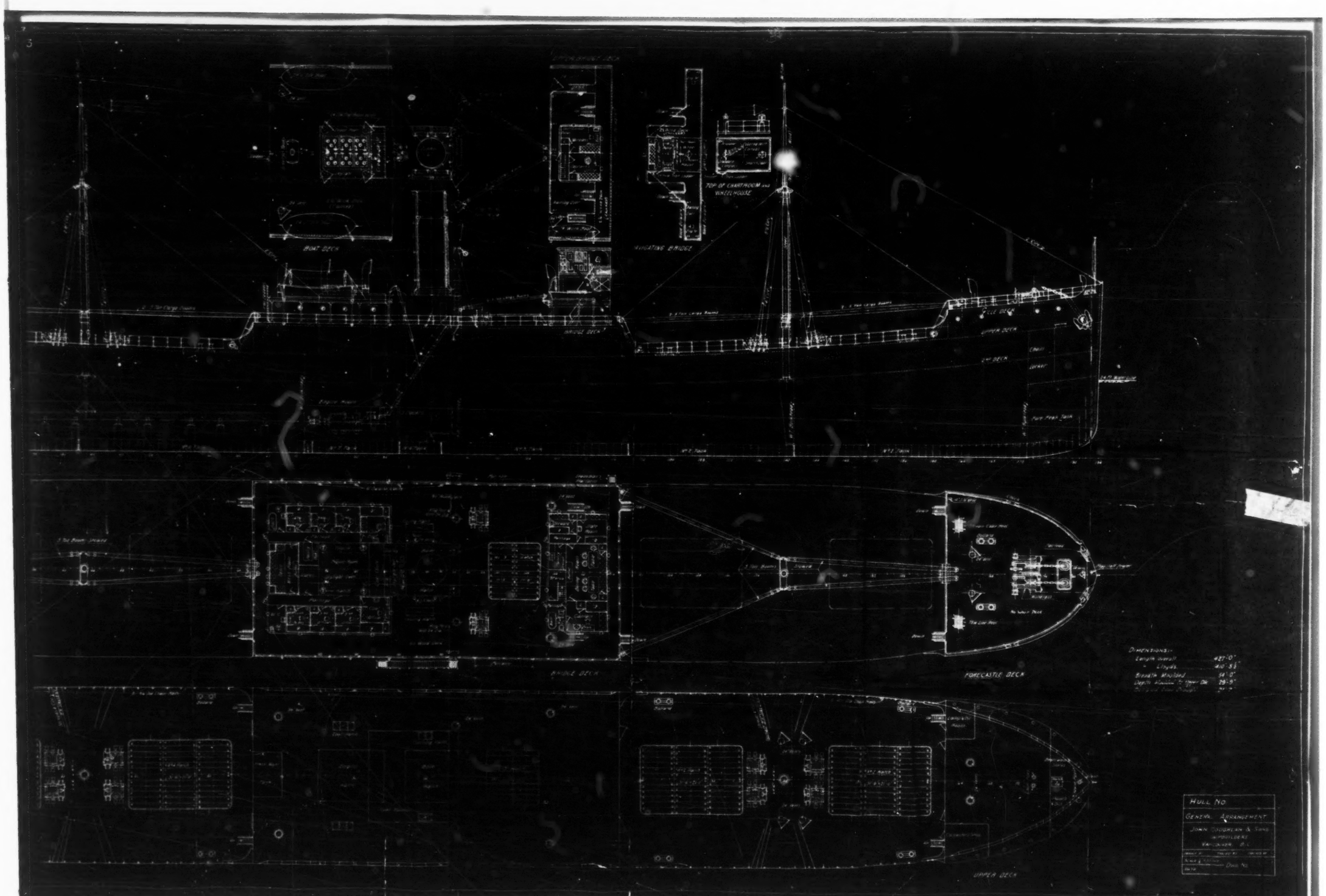
2626

(Blue print.)

2627

2628


MAIN DECK
BRIDGE DECK
ROOF DECK



BOAT DECK
TOP OF CHARTHOUSE AND WHEELHOUSE
NAVIGATING BRIDGE
BRIDGE DECK
UPPER DECK
2nd DECK
Fore Peak Tank
BRIDGE DECK
FORECASTLE DECK
UPPER DECK
DIMENSIONS:-
Length overall 427'-0"
" Lloyds 410'-3½"
Breadth Moulded 54'-0"
Depth Moulded to Upper Dk 29'-9"
HULL NO
GENERAL ARRANGEMENT
JOHN COUGHLAN & SONS
SHIPBUILDERS
VANCOUVER, B.C.

Claimant's Exhibit 4.

2629

State of Washington,
County of Grays Harbor—ss.:

JOHN J. FITZGERALD, first being duly sworn on his oath, deposes and says: That he is the Master of the American Steamer "Willhilo";

Affiant further states: that on January 15th, while on a voyage from Norfolk, Virginia, to New York, N. Y., at the request of Mr. P. A. Dwyer, of the Williams Steamship Co., he did take sample of pure sea water in Lat. 37°28″ North, and Long. 75°19″ West, together with sample of bilge water. Both samples were placed in containers 2630
covered tightly and delivered to Mr. Dwyer at New York.

JOHN J. FITZGERALD
Master S. S. "Willhilo"

Subscribed and sworn to before me this 24th day of January, 1923.

M. W. TAYLOR
Notary Public in and for the State of Washington, residing at Aberdeen, Washington. 2631

(Seal)

Claimant's Exhibit 5 and 6.

2632

AVERAGE AGREEMENT

WHEREAS, THE S/S "WILLDOMENO"

whereof
was Master, having on board a cargo of merchandise, sailed from the port of Palermo and Messina during the month of June 1920, bound for New York via Lisbon and in due prosecution of her said voyage, it is alleged, that the machinery became disabled and she put into the Azores, repairs were made and the vessel resumed her
2633 voyage, but subsequently put into Sydney. After leaving there she struck a rock off Cape Canso which necessitated putting into Halifax where repairs were effected and the voyage resumed.

And whereas by reason of the occurrences of the voyage, certain losses and expenses have been incurred, and other losses and expenses hereafter may be incurred, which may constitute a general average; to be apportioned on the said Vessel, her earnings as Freight and her Cargo, and other losses and expenses have been and may be incurred, which apply to and may be due from specific interests; Now, in consideration of the
2634 premises, we, the subscribers, owners, shippers, or consignees (or agents or attorneys of certain owners, shippers or consignees) of said Vessel, her earnings as Freight, or her Cargo, do hereby for ourselves personally, and our principals and executors and administrators, severally and respectively, but not jointly, or one for the other, covenant and agree to and with Convoy Steamship Company, Ltd., and/or Rodgers & Carr, Inc., as Trustees for all concerned, that all losses and expenses aforesaid, which shall be made to

appear to be due from us or our principals, or 2635
from any firm of which we are or have been copartners, either as owners, shippers or consignees, shall be paid by us respectively, according to the part or share in the said Vessel, her earnings as Freight, or her Cargo, which shall belong to us or shall belong to or be consigned to any person or persons for whom we are agents, or attorneys, or with whom we are or have been partners or in which we are or have been in any manner concerned, provided that such losses and expenses shall be stated and apportioned by Rodgers & Carr, Inc. Average adjusters, in accordance with the *established usages and laws* in 2636
similar cases. And we do further bind ourselves to furnish promptly, on request of said Adjusters, all such information and documents as they may require from us to make said adjustment. This agreement may be executed in several parts of like tenor and date, the whole of which is to constitute but one agreement, with the same effect as if each of said part were severally signed by us.

Should the value of the services rendered in whole or in part to the cargo be determined by amicable settlement or by arbitration WE HEREBY AGREE to pay, each our rateable proportion of any sum thus fixed or determined upon; and in the event of an action or suit being brought to recover for such services, WE HEREBY SEVERALLY AGREE to give bond therefor in the same manner as if the salvors had required such bond direct from us before surrendering the cargo; and WE FURTHER AGREE to pay and fully satisfy any final decree that may be rendered. 2637

Claimant's Exhibits 5 and 6.

IN WITNESS WHEREOF, we have to these presents set our hands, in the City of New York this ninth day of Aug. in the year of our Lord one thousand nine hundred twenty.

Signatures	No. of Packages and Description	Amount of Invoice	Where Insured
Chas. Pfizer & Co., Inc., George A. Anderson Treasurer		Lire	
Chas. Pfizer & Co., Inc., 81 Maiden Lane, New York	335 Cks. Citrate Lime	1,735,234.60	½ interest Queen ½ interest Switzerland General Ins. Co. to-day's rate of exchange £19.75
Santi Amoroso	882 Boxes Lemons	$882.00	insured abroad
Santi Amoroso 90 West Broadway	Union & Troins Brand Isco Puccio		

Claimant's Exhibits 5 and 6.

2641

AVERAGE AGREEMENT

WHEREAS, THE S/S "WILLDOMINO"

whereof
was Master, having on board a cargo of merchandise, sailed from the port of Palermo and Messina during the month of June 1920, bound for New York via Lisbon and in due prosecution of her said voyage, it is alleged, that the machinery became disabled and she put into the Azores, repairs were made and the vessel resumed her voyage, but subsequently put into Sydney. After 2642
leaving there she struck a rock off Cape Canso which necessitated putting into Halifax where repairs were effected and the voyage resumed.

And whereas by reason of the occurrences of the voyage, certain losses and expenses have been incurred, and other losses and expenses hereafter may be incurred, which may constitute a general average; to be apportioned on the said Vessel, her earnings as Freight and her Cargo, and other losses and expenses have been and may be incurred, which apply to and may be due from specific interests; Now, in consideration
of the premises, we, the subscribers, owners, ship- 2643
pers, or consignees (or agents or attorneys of certain owners, shippers or consignees) of said Vessel, her earnings as Freight, or her Cargo, do hereby for ourselves personally, and our principals and executors and administrators, severally and respectively, but not jointly, or one for the other, covenant and agree to and with Convoy Steamship Company, Ltd., and/or Rodgers & Carr, Inc., as Trustees for all concerned, that all losses and expenses aforesaid, which shall be

made to appear to be due from us or our principals, or from any firm of which we are or have been copartners, either as owners, shippers or consignees, shall be paid by us respectively, according to the part or share in the said Vessel, her earnings as Freight, or her Cargo, which shall belong to us or shall belong to or be consigned to any person or persons for whom we are agents, or attorneys, or with whom we are or have been partners or in which we are or have been in any manner concerned, provided that such losses and expenses shall be stated and apportioned by Rodgers & Carr, Inc. Average adjusters, in accordance with the *established usages and laws* in similar cases. And we do further bind ourselves to furnish promptly, on request of said Adjusters, all such information and documents as they may require from us to make said adjustment. This agreement may be executed in several parts of like tenor and date, the whole of which is to constitute but one agreement, with the same effect as if each of said part were severally signed by us.

Should the value of the services rendered in whole or in part to the cargo be determined by amicable settlement or by arbitration WE HEREBY AGREE to pay, each our rateable proportion of any sum thus fixed or determined upon; and in the event of an action or suit being brought to recover for such services, WE HEREBY SEVERALLY AGREE to give bond therefor in the same manner as if the salvors had required such bond direct from us before surrendering the cargo; and WE FURTHER AGREE to pay and fully satisfy any final decree that may be rendered.

Claimant's Exhibits 5 and 6.

IN WITNESS WHEREOF, we have to these presents set our hands, in the City of New York this 9th day of August in the year of our Lord one thousand nine hundred and twenty.

Signatures	Description No. of Packages and	Amount of Invoice	Where Insured
Chas. Pfizer & Co., Inc., George A. Anderson Treasurer		Lire	
Chas. Pfizer & Co., Inc., 81 Maiden Lane, New York	335 Cks. Citrate Lime	1,735,234.60	½ interest Queen ½ interest Switzerland General Ins. Co.
	Risk No. 24622 $88400. Rate of exchange 19.75		

Claimant's Exhibit 7.

2650

New York, Aug. 10, 1920

Messrs. Rogers & Carr, Inc.,
New York.

In consideration of the delivery from the Steamer Willdomino of the following goods, viz:—

Various—as per memo.
(Canceled stamp.)

Shipped by, Consigned to—Various, as per memo.

2651

without the requirement of a deposit, we hereby guarantee to pay you all General Average, Salvage and/or Special Charges for which said goods are liable.

MARITIME INSURANCE CO., LTD.

NEWARK FIRE INSURANCE CO.
Marine Department

ROYAL INSURANCE CO., LTD.
Marine Department

2652

STAR INSURANCE CO. OF AMERICA
Marine Department

QUEEN INSURANCE CO. OF AMERICA
Marine & Transportation Dept.
J. E. Hoffman, Mgr.
per H. C. H.

Claimant's Exhibit 7.

New York, N. Y. 2653
Aug. 10, 1920.

Messrs: Rogers & Carr, Inc.
S/S Willdomino

Referring to G/A guarantee given you under date of Aug. 10th, we now hand you below list of shipments to be covered thereunder:

Shipper	Interest	Marks & Numbers
Chas. Pfizer & Co., Inc.	one-half interest in 335 casks Citrate Lime	

QUEEN INSURANCE CO. OF AMERICA 2654
Marine & Transportation Dept.
J. E. HOFFMAN
per H. C. H.

SWITZERLAND GENERAL INSURANCE CO. OF ZURICH

BERTSCHMANN & MALOY, Attorneys
53 Beaver St.

Codes--A. B. C.
Western Union
Premier 2655

New York,
August 10th, 1920

Messrs. Rodgers & Carr, Inc.,
80 Maiden Lane
New York City

Gentlemen:— Guarantee #1—S/S "Willdomino"

In consideration of the delivery without the requirement of a deposit of goods hereafter to

2656 be specified, we hereby guarantee the payment of all General Average, Salvage and/or Special Charges for which said goods are liable.

We remain,

Very truly yours,

SWITZERLAND GENERAL INSURANCE CO
BERTSCHMANN & MALOY
Attorneys.

(Canceled stamp.)
WS/OS
Shipper: Chas. Pfizer & Co., Inc.
Shipment: 335 casks Citrate Lime
2657
Switzerland's Interest—*one-half.*

Claimant's Exhibit 8.

Examined for.....Queen Insurance Company
Consigned to...Messrs. Charles Pfizer & Company
Ex.....S. S. "Willdomino"
From.....Palermo, arrived about Aug. 9th, 1920

SHIPMENT

C A 4967/5301 335 Casks Citrate of Lime.
P

2658 Being advised of damage to the above shipment we proceeded on August 10th to Pier C, Jersey City. We learned that this shipment was stowed in the No. 1 lower hold. That owing to engine trouble the steamer put into the Azores in distress.

She sailed from there on July 10th and then put into Cape Breton for coal. When she resumed her voyage she struck some obstruction and sprung a leak, filling No. 1 hold with water, making it necessary to put into Halifax in distress.

Claimant's Exhibit 8.

The above shipment was stowed in the No. 1 2659
hold and was submerged.

The Steamer sailed from Halifax to New York on August 3rd.

After arrival at New York the work of discharging her cargo of Lemons proceeded, after which the Steamer was taken to the foot of 134th Street, North River. On August 20th we visited her at that pier but found that no work was being done and we were unable to see the shipment. We again visited the Steamer on August 23rd and in company of a representative of Messrs. Pfizer & Company went aboard the 2660
Steamer and into the hold, finding the top tier clear of the water but all the remaining tiers were submerged. The top tier packages had also been submerged. The contents was thoroughly wet and had the consistency of a heavy paste.

Messrs. Pfizer & Company's representative did not consider the Citrate would have any value.

The Agents of the Steamship Company stated it was impossible to discharge the casks with the hold one-half full of water and it was impossible to get the water out of the compartment until the Steamer was placed in dry dock.

We have had samples of the Citrate drawn and 2661
have submitted these to a Chemist and are now awaiting his report as to the quantity of Citrate remaining in order to determine if it has sufficient value to warrant processing. We fear that there will be little of value, if any.

We are submitting this as a preliminary report in the matter.

.....Appraisers.

New York, September 16th, 1920
No. 3722/20

Claimant's Exhibit 9.

2662 (Post Card.)

Goldman, Sach & Co.,
60 Wall Street,
New York City.

ARRIVAL NOTICE

We beg to advise that the S. S. Willdomino has arrived and has on board shipment of Pkgs. Mdse. alleged to be for you; same is now being discharged at Pier C, Jersey City. You should enter at Customs immediately to avoid General Order charges. Please remove the mer-
2663 chandise promptly noting that all goods remain on pier at your risk and expense, and that same may be stored, also at your risk and expense, unless removed within three days after entry of steamer.

B/L No. .....
Freight £342-13-2

Yours truly,

WILLIAMS S. S. CO., INC.
44 Whitehall Street
Bowling Green 7394

2664 Rider attached to postcard.

S. S. "Willdomino".

Please call at the office of Messrs. Rodger & Carr, 80 Maiden Lane, and sign the General Average Bond, and be prepared to make a cash deposit to secure the payment of the General Average charges, if the merchandise is insured with a local company, their guarantee will be accepted in lieu of a deposit. Kindly take with you a memorandum of invoice value and marks and numbers of consignment, and name of underwriter insuring same.

Claimant's Exhibit 10.

2665

State of New York,
City and County of New York—ss.:

Victor C. Trebay, of the City of New York, being duly sworn, says that he is the Principal Clerk of the Publisher of

THE JOURNAL OF COMMERCE
AND COMMERCE BULLETIN

a daily newspaper printed and published in the City of New York, and that the Notice, of which the annexed is a printed copy, has been regularly published in the said

2666

THE JOURNAL OF COMMERCE
AND COMMERCE BULLETIN

three times as follows: August 9th 10th and 11th 1920.

VICTOR C. TREBAY.

Sworn before me this
1st day of February, 1923.

SAMUEL G. NICHOL,
Notary Public,
County of Kings.

2667

(Certificate filed in New York County.)
(Seal)

Notice—The British Steamer Willdomino, Beeby Master, from Palermo, Messina, Lisbon is discharging under general order at Pier C, Jersey City.

Consignees will call at the office of Messrs. Rodgers and Carr, 80 Maiden Lane and sign the

Claimant's Exhibit 10.

general bond, and be prepared to make a cash deposit of 10% to secure the payment of the general average charges; if the merchandise is insured with a local company, their guarantee will be accepted in lieu of a deposit. Kindly take with you a memorandum of invoice value and marks and numbers of consignment, and name of underwriter insuring same.

Consignees will then call at the office of the undersigned, pay freight and receive delivery order. Goods remaining on wharf after 5 p. m. will be stored or left on dock at risk and expense of owners thereof. All persons are hereby cautioned against harboring or trusting any of the crew, as no debts of their contracting will be paid by the captain or Williams Steamship Company, Inc., Agents, 44 Whitehall Street, New York City.

Claimant's Exhibit 11.

2671

Cut—Works and Laboratories, Borough of Brooklyn, New York.

Emile Pfizer, President
Wm. H. Erhart, Vice President
George A. Anderson, Treasurer
Franklin Black, Secretary

John Anderson
Chairman of the Board

Established 1849

Cable Address
Pfizer-New York

2672

Telephone Connections

CHAS. PFIZER & CO., INC.
Manufacturing Chemists
New York
81 Maiden Lane

The Williams S. S. Co.
44 Whitehall St.
City.

2673

81 Maiden Lane, Sept. 2nd, 1920

Dear Sirs:

Referring to shipment of 335 Casks Citrate Lime Ex. S. S. Willdomino beg to state that from samples taken from of about 40 Casks out of this shipment it appears that these goods will be a total loss due to the fact that they have been in water for so long a period, and we

Claimant's Exhibit 11.

2674 hereby notify you that we reserve the right to file claim covering this damage which we shall do as soon as the goods are out of the steamer which we understand will not be for a week or more. After a careful examination is made of the entire lot we will again take this matter up with you. We remain

Very truly yours

CHAS. PFIZER & CO., INC.
Per CHARLES P. HAFFEY

CH/C

2675 Pencilled memo

9/2/20

Spoke to Mr. Schmidt, Underwriter, and he said report of test would come through on Tuesday.

H. R. B.

2676

Claimant's Exhibit 12.

2677

Telephone
203 Hackensack

Cable Address
"Citro"

A B C 5th Edition

CITRO CHEMICAL COMPANY
of America
Chemical Manufacturers
Maywood, New Jersey

August 26, 1920.

The Williams Steamship Company, 2678
44 Whitehall Street,
New York, N. Y.

"WILDOMINO"

Gentlemen:—

There is a serious loss to our cargo of 168 casks of Citrate of Lime now aboard above steamer and we hereby lodge notice of claim upon you, her owners and charterers.

Providing the present condition of the material will warrant it, we will handle the shipment to best advantage and inform you, in due 2679 course of the final outturn and loss thereon.

Yours very truly,

CITRO CHEMICAL COMPANY,
C. J. PENGILLY
Treas.

2680 **Claimant's Exhibit 13.**

August 26th, 1920

SPECIFICATIONS
FOR
REPAIRS AND RENEWALS
TO THE
S. S. "WILLDOMINO"

These Specifications are for repairs and renewals to be effected to the Steamship "Willdomino" now lying at Tietjen & Langs, Hoboken,
2681 N. J., where she may be seen.

It is to be understood by the contractor that the repairs and renewals herein specified are to be carried out and completed in all of the details connected therewith and that the workmanship and material must be of the best quality throughout and the materials must be of the size, etc., of those originally in the vessel, and that the repairs must in every respect be made under the supervision and to the satisfaction of the Owners, their representative and the Classification Surveyors, and all according to good steam-
2682 ship practice.

It is further to be understood by the contractor that all materials requiring a test shall be tested in accordance with the rules of the Classification and all charges and costs for tests inspection, etc. must be borne by the contractor.

If any dispute or difference shall arise relating to or concerning these specifications or anything arising out of this contract or relating to any claim for extra work, or as to the quality of the material furnished or to the workman-

ship, such dispute or difference shall be left to the Surveyors, whose decision shall be binding on all parties. 2683

Should the contractor require the removal of any parts of the vessel or her fittings or her engines, boilers or their fittings, or of any coals, or stores or outfit, the same is to be done by him and all such removals must be subsequently replaced and any damage resulting therefrom is to be made good by the contractor and at his expense, and should the contractor require the removal of ashes or dirt, he shall remove the same from the vessel and at his expense.

All unused old material to become the property of the contractor. 2684

The contractor is to have the privilege of fairing the plates in place which are provided to be removed and faired, if the same can be done to the satisfaction of the Owner's representative and all others concerned but not otherwise.

The contractor is to fully protect the ship and the owners against all claim for injury to workmen while the vessel is undergoing repairs.

Tenders to be given in a lump sum for all the work specified or implied, the lump sum to include the cost of all dry dock rent, wharfage charges, charges for night and day watchmen, shoring or moving of the vessel by the repairer at their works, also the cost of transporting the vessel from where she now lies to the works of the successful contractor and back to a wharf in the port of New York, to be selected by the owners, including pilotages, towages and all expenses connected therewith. 2685

The lump sum is also to include all charges and costs for water for the boilers while the vessel is undergoing repairs and all charges and

Claimant's Exhibit 13.

2686 costs for materials, labor, tools, machinery and all other items or appliances which may be required in the carrying out of this contract.

Tenders must specify the time to complete the repairs as set forth in these specifications in continuous running days; the contractors' time and liability to commence immediately upon the acceptance of his tender and to cease when the repairs and replacements are completed and he has removed all his equipments, tools, and appliances, and all dirt, etc. from the vessel and handed the vessel over to the owners, ready
2687 for sea, compasses adjusted.

Should the contractor exceed the time agreed on in his contract for carrying out the repairs, renewals, replacements, etc. specified or implied, demurrage is to be paid by him at the rate of $500.00 for each and every day in excess of the time named for the completion of this contract.

Tenders must be handed to Mr. G. T. Williams, President, Williams Steamship Company, 44 Whitehall Street, New York, at 3 P. M. on Friday, August 27th, 1920, when they will be opened.

The owners reserve the right to reject any or
2688 all tenders.

Tenders to be drawn in the following form:

"I (or we) hereby agree to faithfully carry out and complete all the repairs, renewals and replacements to the Steamship "WILDOMINO" as set forth in these specifications under date of August 26th, 1920, and to abide by all the conditions expressed or implied therein,

Claimant's Exhibit 13.

Specification #1 for the sum of $..... and ..... days
Specification #2 for the sum of $..... and ..... days
Specification #3 for the sum of $..... and ..... days

2689

Fletchers

1	$63,980—30 days
2	18,000—30 "
3	8,000—30 "

T&L

1	$37,000—30 days
2	24,000—30 "
3	2,930—18 "

2690

August 26th, 1920

STEAMSHIP "WILDOMINO"
DETAIL OF WORK
SPECIFICATION NUMBER ONE

The lower portion of the stem from the scarph down to be removed and a new stem of similar size and material to be supplied, machined and fitted to place.

2691

SHELL PLATING

KEEL STRAKE

Plates Nos. 1 and 2 to be renewed.

STARBOARD SIDE

The forefoot plate to be renewed.
A Strake—Plates Nos. 1 and 2 to be renewed.
C Strake—Plates Nos. 1 and 2 to be renewed.

2692 Plate No. 3 to be removed, faired and refitted to place.

D Strake—Plate No. 1 to be faired in place.

E Strake—Plate No. 1 to be removed, faired and refitted to place.

PORT SIDE

The forefoot plate to be renewed.

A Strake—Plates Nos. 1 and 2 to be renewed.

C Strake—Plates Nos. 1, 2 and 3 to be renewed.

D Strake—Plate No. 1 to be removed, faired and refitted to place.

2693 E Strake—Plate No. 1 to be removed, faired and refitted to place.

Plate No. 2 to be faired in place.

The center keelson plates and angles in way of the damage to be renewed.

About eleven frames and reverse frames on the port and starboard sides to be renewed for their entire length.

The bounding angles for the forepeak bulkhead on the port and starboard sides to be renewed for their entire length.

About eleven floors, angles, clips, etc. in way of the damage to be renewed complete.

2694 One floor and angles for same to be removed, faired and refitted to place.

The channel stanchions, panting beams, intercostal plates, brackets, angles, clips, etc. in way of the damage where badly bent or broken to be renewed and where bent to be removed, faired and refitted to place or faired in place.

The two lower stringers and the breast hooks in the forepeak to be partly renewed.

The drain plugs and connections for same in the forepeak to be renewed.

Claimant's Exhibit 13.

The sounding pipes, suction pipes, etc. in the forepeak and the forward end of No. 1 hold to be repaired with part new material. 2695

The wood casings in way of the above to be renewed.

The lower portion of the fore and aft bulkhead, together with the angles for same in the forepeak tank to be renewed.

The lower plate for the forepeak bulkhead to be renewed.

The second and third strakes of plating from the bottom in the forepeak bulkhead to be removed, faired and refitted to place and the fourth strake of plating there to be faired in place. 2696

Two channel iron stiffeners for the forepeak bulkhead to be faired in place and four stiffeners to be cut, the damaged portions to be renewed and secured to the remaining portion of the stiffeners with backing bars.

Three tank top plates at the forward end of No. 1 hold to be renewed.

One margin plate on the port side and one on the starboard side at the forward end of No. 1 hold to be renewed complete with angles, etc.

One bilge bracket on the port side and one on the starboard side at the forward end of No. 1 hold, together with the angles, clips, etc. for same to be removed, faired and refitted to place. 2697

The riveting and caulking in way of the forepeak bulkhead to be overhauled and made tight.

Any defective riveting there to be renewed.

All broken and disturbed cement to be renewed.

The ceiling and limber boards in No. 1 hold to be removed, the tank tops and bilges there to be thoroughly cleaned and recoated as originally and the ceiling and limber boards to be renewed and laid.

Claimant's Exhibit 13.

All missing and broken cargo battens in No. 1 hold to be renewed.

All iron work in No. 1 hold, including the ship's sides, bulkheads, under side of deck and cargo battens, to be thoroughly cleaned and recoated with two coats of approved paint.

No. 1 tank to be thoroughly cleaned and coated with two coats of cement wash.

The forepeak tank to be thoroughly cleaned and coated with two coats of cement wash.

Upon completion of repairs the forepeak tank and No. 1 double bottom tank to be tested and proven tight.

All new and repaired work to be painted as originally.

No. 3 keel plate and one plate in F and G strakes on the starboard side and any other parts removed in order to effect the above repairs to be replaced in good order as before and any parts damaged in the removal to be renewed.

The vessel to be properly shored while effecting repairs.

The temporary shoring in way of the bulkhead between Nos. 1 and 2 holds to be removed.

The ballast pump to be opened up for examination, the suction and delivery valves for same to be renewed and the pump to be thoroughly overhauled and put in good working order.

The necessary dry docking in order to effect the above repairs.

SPECIFICATION NUMBER TWO.

The condensate pump to be thoroughly overhauled, repaired and put in good working order.

The H. P. and L. P. turbines complete to be removed from the vessel.

Claimant's Exhibit 13.

H. P. TURBINE 2701

The rotor and stationary blading to be renewed where broken or missing and repaired where started or bent.

The bearings for the motor to be remetaled and fitted to place.

One set of thrust pads to be renewed and fitted to place.

The thrust collars to be reground.

The oiling arrangement for the H. P. turbine to be cleaned, repaired and proven in order.

L. P TURBINE 2702

The rotor blading and stationary blading where broken or missing to be renewed and where bent or started to be repaired.

The bearings for the rotor to be remetaled and fitted to place.

Two sets of thrust pads to be renewed and fitted to place

The thrust collars to be reground.

The oiling arrangement for the L. P. turbine to be thoroughly cleaned, repaired and proven in order.

The bearings for the main shaft to be remetaled and fitted to place. 2703

The go-ahead thrust pads for the main shaft to be remetaled.

The thrust collars for the main shaft to be reground on the go-ahead side.

The high speed pinion bearings to be remetaled and fitted to place.

The labyrinth packing for the high pressure turbine to be renewed and fitted to place.

Upon the completion of the above repairs the clearances for the turbines, etc. to be checked to

the satisfaction of the owners' representative and the Classification surveyor.

The casings for the turbines and gears upon completion of repairs, to be lowered to place and connected up complete as before in alignment.

The two expansion joints between the H. P. and L. P. turbines to be renewed with Parsons' Standard Expansion Joints and fitted to place.

Upon the completion of the repairs the high pressure and low pressure turbines to be given a 25% overspeed test in the shop and if found in order the turbines to be replaced in the vessel and connected up complete as before, and the propeller and machinery then to be given a thorough dock trial and proven in order.

All parts removed in order to effect the above repairs such as engine room skylight, gratings, piping, etc. to be replaced in good order as before.

All damaged or disturbed pipe covering, lagging, etc. to be renewed.

SPECIFICATION NUMBER THREE

The turbine gears to be lifted, all started riveting for the gear foundation to be cut out and renewed and the gears to be lowered to place, realigned and connected up complete as before.

Claimant's Exhibit 14.

2707

SHERER BROTHERS
Analytical and Consulting Chemists
122 Front St., New York
335 Walnut St., Phila.

New York, Sept. 2, 1920.

CERTIFICATE OF ANALYSIS.

Mr. F. C. Rodman

The samples of Citrate of Lime
Marked as below 2708
Contains as follows:

	Citric Acid
B. L. K.	40.7%
Centre	36.9 "
Surface (Smells fermenting)	33.7 "
N/M (" burnt)	38.7 "
	150.0 "
	Average 37.5 "

Respectfully,

SHERER BROS. 2709
(Seal)

Claimant's Exhibit 15.

2710

LOSS REPORTED: Aug. 2, 1920.

Italy, arrived Aug. 7, 1920.

SURVEY NO. 2
CONVEYANCE: S. S. "WILLDOMINO"
MERCHANDISE: Citrate of Lime
ASSURED: Citro Chemical Co.
NATURE OF LOSS: See Below

SHIPMENT

2711 C A C 5899/6066—168 Casks Citrate of Lime

The steamer "Willdomino" while enroute from Italian ports to New York struck on a rock off Canso and as a result the No. 1 Lower Hold was reported to have been flooded.

It is reported that she then proceeded to Halifax, where measures were applied to permit of the vessel proceeding on the voyage to New York to where she was towed and arrived on August 7th.

When the steamer was berthed at Pier C, Jersey City, on August 9th, I proceeded to the pier, when I found that the hatch covers were on the
2712 No. 1 Hold and that it was intended to discharge only the cargo of lemons at this pier.

Again on August 11th, and 17th, I proceeded to the steamer finding that the No. 1 Hold in which the cask was said to be stowed was not being discharged and that the casks of the above shipment were not accessible.

Subsequently on August 24th, the vessel having been removed to the Pier ft. 135 and North River, I proceeded to that pier and found that the cargo of corkwood was being removed from

the No. 1 Lower Hold, which permitted my examination of the casks, all of which had evidently been submerged in seawater and contents had become heavily wet, caked and discolored. At this time I wrote the General Average Adjusters recommending special care in the discharge of the casks in order to avoid breakage of staves with consequent scattering about of their contents. After which I awaited word as to when to discharge of the casks would be completed when a more detailed examination could be made of the casks in company of the consignees. 2713

I had, in the meantime, requested consignees to lodge notice of claim in writing with the steamship agents, and also suggested they take the necessary steps in order to obtain relief of duty in proportion of the damage sustained. 2714

The casks were not discharged at New York, but were left in stowage and the steamer was then placed in drydock, presumely to have the damaged hull surveyed for repairs and on August 28th, I proceeded to the Tietjen & Lange Drydock at Hoboken, where I found a number of casks had been removed from the Lower Hold and set on the open deck, number of which had staves broken or head staves forced out. I then drew representative samples of the casks which samples I submitted to Messrs. Sherer Bros. Analytical Chemists to have them determine the citric acid contents remaining in the material; the chemist's subsequent report as follows: 2715

	Citric Acid
Bulk	40.7%
Centre	36.9%
Surface	33.7%
Bored from Casks	38.7%

Claimant's Exhibit 15.

2716 On the above basis the average test was about 37.5% citric acid.

Upon communicating with the said chemical company they informed me they were not equipped to handle all of the damaged casks at once and in view of the consequent delay to which the measure part of the casks may be subjected while awaiting to be processed, they were of the opinion that the citrate would continue to ferment and thus continually lose more of the citrate acid contents and for that reason alone they were inclined to consider the situation hopeless.

2717 Further samples subsequently were drawn by Messrs. Koehler Kemp & Koehler, Surveyors appointed by the General Average Adjuster, analized from 26.3 to 42.8 or an average of 33%, which our assured and also Charles Pfizer & Co., the consignees of 335 casks citrate of lime in similar damaged condition, stated that the 33% was too low to warrant the expense of working material.

These tests were submitted to our Philadelphia Office and in turn to Messrs. Powers-Weightman-Rosengarten Co., who also process citrate of lime, and who stated that the cost of extracting the citric acid would be considerably more than the
2718 final value of the citric acid obtained and that the material in its damaged condition was absolutely worthless for any other purpose.

As assured considered the shipment worthless I endeavored to obtain a possible purchaser for the casks and after a short while I finally found a prospect of a buyer with whom I proceeded to the drydock when samples were drawn by him and after several days he made an offer of $2.25 per cask, which offer was so low that I naturally

Claimant's Exhibit 15.

rejected it as it would not pay the duty on the shipment. 2719

This was the only offer that I could obtain and, after further consideration, it was finally decided to consider the shipment a total loss so far as underwriters were concerned, I believe the casks were sold by the Williams Steamship Co., to the buyer, whom I had interested in the above casks.

F. C. RODMAN,
Cargo Surveyor.

New York, December 29th, 1920. 2720

Charge	$150.00
Sherer Bros.	44.00
Wm. Miller & Son	6.10
Total	$200.10

2721

2722 **Claimant's Exhibit 16.**

MEMORANDUM.

INSURANCE COMPANY OF AMERICA.

From

PLATT, FULLER & CO.,
Managers,
27 William Street.

To RODGERS & CARR

New York, Aug. 10, 1920

2723 Dear Sirs:

GENERAL AVERAGE GUARANTEE NO. 148

In consideration of the delivery from the S. S. "Wildomino" of all goods insured by us, hereafter to be specified, without requirement of a deposit, we hereby guarantee the payment of all General Average Salvage and/or Special Charges for which said goods are liable.

Very truly yours,

PLATT, FULLER & CO., Mgrs.

2724 By A. KENNEDY.

(Canceled stamp.)

Claimant's Exhibit 16.

2725

MEMORANDUM.

INSURANCE COMPANY OF NORTH AMERICA.
From
PLATT & FARNUM,
Managers,
27 William Street.

To RODGERS & CARR

New York, Aug. 10, 1920

Dear Sirs:—

2726

S. S. WILDOMINO

Referring to our General Average Guarantee No. 148 by the above named steamer, we beg to advise you that among the cargo insured by us are the following:—

Citro Chemical Co. 168 Casks Citrate of Lime
C.A.C.
5899/6066

PLATT, FULLER & CO., Mgrs.
By A. KENNEDY.

M-5

2727

2728

Part of Claimant's Exhibit 16.

(PHOTOSTAT)

2729

2730

RODGERS & CARR, Inc., Average Adjusters, 80 Maiden Lane, New York.

Average Agreement

Whereas, the Steamship "WILLDOMINO"

whereof J Beeby *was Master, having on board a cargo of merchandise, sailed from the port of* **Palermo and Messina** *during the month of* **June** *last, bound for* **New York via Lisbon** *and in the due prosecution of her said voyage, it is alleged, that* **the machinery became disabled and she put into the Azores, repairs were made and the vessel resumed her voyage, but subsequently put into Sydney. After leaving there she struck a rock off Cape Canso which necessitated putting into Halifax where repairs were effected and the voyage resumed.**

And whereas by reason of the occurrences of the voyage, certain losses and expenses have been incurred, and other losses and expenses hereafter may be incurred, which may constitute a general average, to be apportioned on the said Vessel, her earnings as Freight and her Cargo, and other losses and expenses have been and may be incurred, which apply to and may be due from specific interests; Now in consideration of the premises, we, the subscribers, owners, shippers or consignees (or agents or attorneys of certain owners, shippers, or consignees) of said Vessel, her earnings as Freight, or her Cargo, do hereby for ourselves personally, and our principals and executors and administrators, severally and respectively, but not jointly, or one for the other, covenant and agree to and with

Convoy Steamship Company, Ltd.

and or Rodgers & Carr, Inc., as Trustees for all concerned, that all losses and expenses aforesaid, which shall be made to appear to be due from us or our principals, or from any firm of which we are or have been copartners, either as owners, shippers or consignees, shall be paid by us respectively, according to the part or share in the said Vessel, her earnings as Freight, or her Cargo, which shall belong to us or shall belong to or be consigned to any person or persons for whom we are agents or attorneys, or with whom we are or have been partners or in which we are or have been in any manner concerned, provided that such losses and expenses shall be stated and apportioned by Rodgers & Carr, Inc., Average Adjusters, in accordance with the **established usages and laws** *in similar cases. And we do further bind ourselves to furnish promptly, on request of said Adjusters, all such information and documents as they may require from us to make said adjustment. This agreement may be executed in several parts of like tenor and date, the whole of which are to constitute but one agreement, with the same effect as if each of said parts were severally signed by us.*

Should the value of the services rendered in whole or in part to the cargo be determined by amicable settlement, or by arbitration, WE HEREBY AGREE to pay each our ratable proportion of any sum thus fixed or determined upon; and in the event of an action or suit being brought to recover for such services, WE HEREBY SEVERALLY AGREE to give bond therefor in the same manner as if the salvors had required such bond direct from us before surrendering the cargo; and WE FURTHER AGREE to pay and fully satisfy any final decree that may be rendered.

In Witness Whereof *we have to these presents set our hands, in the City of* Maywood N.J. *this* twelfth *day of* *in the year of our Lord one thousand nine hundred* and twenty.

SIGNATURES	No. of Packages and Description	Amount of Invoice	WHERE INSURED
C.A.C. #5899-6066	168 Casks Citrate of Lime	$50637 93	In New York Three Butchmann Malay. Ins Co N Amer
CITRO CHEMICAL CO. W W White Secy. & Gen'l Mgr. Maywood. N.J.			
G. Mangano	50 Boxes Lemons	$50	abroad
S. Vitale Co 1052 - 60 - Street Brooklyn New York	180 Lemon	$150	
B.B. 2636 Inv# 13.			
Frank Dauci 326 Washington St city	698 Bx of Lemons	$600.00	
Joseph Limoli	Ritrotto Verdelli primissimo 300 — 210 360 — 40 250 cases Lemons		
240 Nelson St. Brooklyn N.Y.	Mezzaluna Verdelli prima 300 — 153 360 — 97 250 cases Lemon		Abroad

8/2-M-14

Claimant's Exhibit 17.

2731

(Copy)

SAARBACH LABORATORIES, INC.
Analytical and Consulting Chemists
114 Pearl Street

Telephone Bowling Green 0779

New York, September 2nd, 1920.

No. 11375/78.

CERTIFICATE OF ANALYSIS.

For Messrs. Sherer Brothers, New York City. 2732

We have examined the 4 samples of CITRATE of LIME marked as stated below and find the following result:

MARK OF SAMPLES:	Real Citric Acid
1.	40.7%
2.	36.9 "
3.	33.7 " ; smells fermenting
4.	38.7 " ; " burnt

September 17th, 1920.

KOEHLER, KEMP & KOEHLER.

2733

10 samples of CITRATE of LIME

	Real Citric Acid.
1.	38.2%
2.	30.9 "
3.	29.4 "
4.	29.6 "
5.	33.9 "
6.	34.4 "
7.	26.3 "
8.	32.4 "
9.	34.7 "
10.	41.8 "

Claimant's Exhibit 18.

2734

REFERENCE INDORSEMENT.

UNITED STATES CUSTOMS SERVICE.
Collection District No. 10, Port of New York.
The within copy of Department letter is referred to you for your information and guidance.

Respectfully,

BYRON R. NEWTON
Collector.
5th Division.

5500/700/109052

2735 Leonhardt & Brush
29 Broadway
Box 193

TREASURY DEPARTMENT
WASHINGTON

January 19, 1921.

The Collector of Customs,
New York, N. Y.

Sir:

2736 The Department refers to your letter of the 24th ultimo, transmitting entries Nos. D-16797 and D-17044, filed at your port on July 14, 1920 and August 9, 1920, respectively, by the Citro Chemical Company and Chas. Pfizer & Company, Inc., covering importations of citrate of lime.

It is alleged by the importers that an accident to the importing vessel during the course of the voyage resulted in the merchandise being saturated with sea-water and rendered practically unfit for commercial use as citrate of lime; and

that they were unable to secure definite information concerning the condition of the vessel and its cargo in time to permit of the filing of timely abandonment notices under paragraph X, of Section III of the tariff act. It appears that a notice of abandonment was filed with respect to entry D-16797 but not within the statutory period. 2737

You report that the total entered value of the two shipments is $143,945.00; that on appraisement the merchandise in question was returned as entered at 1 cent per pound under paragraph 41 of the tariff act, the appraiser reporting that the same was damaged, "saturated with sea-water"; and that in a supplemental report the appraiser states that the shipments were saturated with sea-water and unsuitable for commercial use in the condition as received, without reconditioning, and that both shipments have been sold for $2500. 2738

You submit the question in view of the great difference between the entered value of the merchandise and its value in its imported condition, whether in liquidation of the entries the deposit duties amounting to $6675.62 should be refunded on the ground of non-importation.

The Department is of the opinion that the facts do not bring the shipments within the legal meaning of a non-importation, as it is not shown that the citrate of lime was rendered utterly worthless as merchandise by reason of the casualty, but rather that its usefulness as a commercial commodity in its condition as imported without reconditioning was lost; and the fact that a purchaser was found although the price paid by him was greatly less than the value of the merchandise as entered, would sustain the conclu- 2739

2740 sion that the case is one of damage rather than of non-importation, the merchandise having become greatly depreciated in value but not wholly destroyed.

For the foregoing reasons, and for the further reason that no notice of abandonment was filed as to either shipment within the time and in the manner prescribed by paragraph X, Section III of the tariff act, the Department is without authority to grant relief from the payment of the duties on the basis of the entered value.

The papers are herewith returned.

2741 Respectfully,

GEO. W. ASHWORTH
Chief, Division of Customs.

2742

Claimant's Exhibit 19.

2743

JUNE 13, 1920.

WILLDOMINO VIA NEAPOSPERONE RADIO WILSHIPCO NY

PROCEEDING GIBRALTAR FOUR HUNDRED AND FIFTY BUNKERS.

CAPTAIN

2744

2745

2746

Claimant's Exhibit A.

(PHOTOSTAT)

2747

2748

Claimants Ex. A

Claimants Ex. A
(Back)

FRATELLI BONANNO

(ESTABLISHED 1848)
STEAM SHIP AGENTS & BROKERS.
COAL IMPORTERS.
MESSINA

Agencies at all Sicilian Places.

Telegrams: "BONANNO"

C A
P
4864/5301
Ford. Baller & C.
MESSINA

Said to be marked as per margin
It is specially stipulated that no claim
is to be entertained against the shipper or receiver
for any loss arising from difference in
marks numbers or contents

FREIGHT
60/- p/100 Rs
L. 684. 2. 1

Primage
FREIGHT TO BE PAID L. 684. 2. 1
Charges
% Premium
Total L.

Claimants Ex. A

Claimants Ex. A

SHIPPED by, or received for shipment, in apparent good order and condition from Ferd. Baller & C. Oct 2/20
to be transported by the good Steamship Wilhelmina Captain
to NEW YORK with liberty to call at **Intermediate Ports** or any port or ports in or out of the customary route in any order, to receive and discharge coal, cargo, passengers, and for any other purposes, and if failing shipment by her, then the goods to be shipped by the following steamship or any other of the same line.

(335) Three hundred Thirty Five Casks Citrate of Lime L 228035
28/1/21

said to be marked and numbered as above, weight, measure, quality, contents and value although mentioned in the Bill of Lading, to be considered as unknown to the Master, unless expressly recognised and agreed to the contrary, and to be delivered in like good order and condition, within the jurisdiction of the Custom-House of the aforesaid port of NEW YORK unto Messrs. Chas. Pfizer & Co. Inc.

or to his or their assign, freight on the goods and charges as per margin NEW-YORK ship lost or not lost

General Average payable according to York and Antwerp Rules 1890.

IT IS MUTUALLY AGREED AS FOLLOWS: FIRST: The Ship and Carrier shall not be liable for loss or damage occasioned by the perils of the sea or other waters, by fire from any cause wheresoever occuring, by barratry of the Master or crew, by enemies, pirates, robbers or thieves, by arrest and restraint of princes, rulers or people, by explosion, bursting of boilers, of breakage of shafts, or any latent defect in hull, machinery or appurtenances, **or unseaworthiness of the ship even existing at time of shipment or sailing on the voyage, provided the owners, have exercised due diligence to make the vessel seaworthy**, by collision, stranding, or other accidents of navigation of whatsoever kind, even when occasioned by the negligence, default or error in judgment of the pilot mariners, or other servants of the shipowner, nor for any loss or damage caused by heat, decay, putrefaction, vermin, rust, sweat, change of character, shrinkage, leakage, breakage nor for any loss damage arising from the nature of the goods or the insufficiency of the packages; nor for any countrydamages; nor for the obliteration, errors, insufficiency or absence of marks or numbers, address or description; nor for risk of craft, hulk and transhipment; nor for any loss or damage caused by the prolongation of the voyage; nor for any loss or damage occasioned by causes beyond his control. Fault of **master and crew in the navigation or management of the ship will not liberate the consignees from contributing their proportion in General Average.**

SECOND: The ship shall have liberty to sail without pilots; to tow and assist vessels in distress; to deviate for the purpose of saving life or property. That the Carrier shall have liberty to convey goods in lighters to and from the ship at the risk of the goods and in case the Ship shall put into a port of refuge or be prevented from any cause from proceeding in the ordinary course of her voyage, to transship the goods to their destination by another vessel.

THIRD: The value of package receipted for as above does not exceed the sum of One Hundred Dollars, unless otherwise stated herein, on which basis the rate of freight is adjusted. Neither Ship nor Carrier hall be liable for gold, silver, bullion, specie documents, jewelry, works of art, silks, furs, timepieces, porcelain, or other highly valuable articles, unless notice of true character and value thereof is given and same is entered in the bill of lading.

FOURTH: Shippers shall be liable for any loss or damage to Ship or Cargo Caused by inflammable, explosive or other dangerous goods, shipped without full disclosure of their nature whether such shipper shall have been aware of it or not, and whether such shipper be principal or agent; and such goods may be thrown overboard or destroyed at any time without compensation.

FIFTH: The Carrier shall have a lien on the goods for all fines or damages whicht the Ship or Cargo may incur or suffer by reason of the incorrect or insufficient marking of packages or description of their weight or contents.

SIXTH: Goods once received for shipment cannot be taken away by the shipper except upon payment of the full freight, damages and expenses sustained by the Ship or Cargo through such taking away.

SEVENTH: In case Ship shall be prevented from reaching her destination by Quarantine, the Carrier may discharge the goods into any depot or lazaretto, and such a discharge shall be deemed a final delivery under this contract, and all the expenses thereby incurred on the goods shall be a lien thereon. **In case of blockade or Interdict of the port of discharge or if without such blockade or interdict** the entering of or discharging inthe port shall be considered by the master unsafe by reason of war or disturbance, or ice, or from any other cause, the master may land the goods at any other port which he may consider safe at the expense and risk of the owner of the goods. The master to have the right of accomplishing this bill of lading at any other port which he may consider safe.

EIGHTH: **The ship has liberty of filling up and or bunkering at any port or ports in or out of the way.**

NINTH: Full freight is due on damaged goods and on goods diminished by leakage, but no freight is due on any increase in bulk or weight caused by the absorption of water during the voyage.

TENTH: The carrier shall have a lien on all goods for payment of freight and charges, including dead freight, demurrage, forwarding, charges, charges for carriage to port of transhipment and the said damages and expenses mentioned in ¶ 5 and ¶ 7, and for General Average claims, and, if on sale of goods at destination for freight and charges the proceeds, less duty, fail to cover such freight and charges, the Carrier shall be entitled to recover such difference from the Shipper.

ELEVENTH: In the event of claims for loss, damage or short delivery the same shall be adjusted on the basis of the invoice value of the entire shipment adding expenses necessarily incurred.

TWELFTH: Freight and charges to be paid immediately on the landing of the goods, without any allowance, credit or discount sterling freight payable at short rate of Exchange on London quoted at noon on the day of the Ship's arrival, or, if a holiday, on the preceding day Prepaid Freight cannot be reclaimed, Ship or Goods lost or not lost.

THIRTEENTH: Goods to be taken from the Ship by the Consignees directly they come to and in discharging the Ship, and the Carrier's responsibility to cease, package by package, immediately the goods leave Ship's deck or tackle. If not taken from alongside by Consignees, they will be landed and deposited at the expense of the Consignees, and at his risk of fire, loss or injury on the dock, or in craft the Collector of the Port being hereby authorized to grant a general Order for the discharge immediatily after the entry of the ship.

FOURTEENTH: Parcels for different Consignees, collected | made up in single packages, addressed to one party for delivery on examination by the Customs, be charged with the proper fre on each parcel.

AND FINALLY: In accepting this bill of lading, the Ship, Owner and Consignee of goods agree to be bound by all its stipulations, exceptions, and conditions, whether printed or written, as fully as if they were all signed by such Shipper, Owner or Consignee.

IN WITNESS WHEREOF the Master or Agent of the said ship has affirmed to Bill of Lading, all of this tenor, and date, one of which being accomplished the others to stand void.

Filling up, only in part on the way Westwards of Naples

Dated in MESSINA the 10 day of June 1920

For the Master

Chas Pfizer & Co., Inc.
Treasurer

Claimants Ex..B

FELLI BONANNO

(ESTABLISHED 1848)

STEAM SHIP AGENTS & BROKERS,

COAL IMPORTERS.

MESSINA

Agencies at all Sicilian Places.

Telegrams: "BONANNO"

C A

C

5899/6066

Fwd. Baller & C.

MESSINA

Said to be marked as per margin.
It is specially stipulated that no claim is to be made upon the shipper or receiver for any loss arising from difference between marks numbers or contents

FREIGHT

60/- p/100 Rs-

L. 342. 13. 2

Primage

FREIGHT TO BE PAID

L 342. 13. 2

Charges

Previous

TOTAL L.

SHIPPED by, or receveid for shipment, in apparent good order and condition from Jno. Baller & C.

to be transported by the good Steamship Volturno Captain

to NEW YORK with liberty to call at Intermediate Ports or any port or ports in or out of the customary route in any order, to receive and discharge coal, cargo, passengers, and for any other purposes, and if failing shipment by her, then the goods to be shipped by the following steamship or any other of the same line.

Claimant's Exhibit B
Affidavit of Facts

(168) One hundred Sixty Eight Casks Citrate of Lime K 116230

said to be marked and numbered as above, weight, measure, quality, contents and value although mentioned in the bill of Lading, to be considered as unknown to the Master, unless expressly recognized and agreed to the contrary, and to be delivered in like good order as condition, within the jurisdiction of the Custom-House of the aforesaid port of NEW YORK unto Messrs. Goldman, Sachs & Co

or to his or their assign, freight as the goods and charges as per margin NEW-YORK ship lost or not lost

General Average payable according to York and Antwerp Rules 1890.

IT IS MUTUALLY AGREED AS FOLLOWS: FIRST: The Ship and arrier shall not be liable for loss or damage occasioned by the perils of the seas or other waters, by fire from any cause wheresoever occuring, by barratry of the Master or crew, by enemies, pirates, robbers or thieves, by arrest and restraint of princes, rulers or people, by explosion, bursting of boilers, of breakage of shafts, or any latent defect in hull, machinery or appurtenances, or unseaworthiness of the ship even existing at time of shipment or sailing on the voyage, provided the owners have exercised due diligence to make the vessel seaworthy, by collision, stranding, or other accidents of navigation of whatsoever kind, even when occasioned by the negligence, default or error in judgment of the pilot masters, mariners, or other servants of the shipowner, nor for any loss or damage caused by heat, decay, putrefaction, vermin, rust, sweat, change of character, shrinkage, leakage, breakage nor for any loss or damages arising from the nature of the goods or the insufficiency of the packages, nor for any consequentdamages, nor for the obliteration, errors, insufficiency or absence of marks or numbers, addressor description; nor for risk of craft, hulk and transhipment; nor for any loss or damage caused by the protongation of the voyage; nor for any loss or damage occasioned by causes beyond his control. Fault of master and crew in the navigation or management of the ship will not liberate the consignees from contributing their proportion in General Average.

SECOND: The ship shall have liberty to sail without pilots; to tow and assist vessels in distress; to deviate for the purpose of saving life or property. That the Carrier shall have liberty to convey goods in lighters to and from the ship at the risk of the goods and in case the Ship shall put into a port of refuge or be prevented from any cause from proceeding in the ordinary course of her voyage, to transhp the goods to their destination by another vessel.

THIRD: The value of package receipted for as above does not exceed the sum of One Hundred Dollars, unless otherwise stated herein, on which basis the rate of freight is adjusted. Neither Ship nor Carrier hall be liable for gold, silver, bullion, specie documents, jewelry, works of art silks, furs, timepieces, porcelain, or other highly valuable articles, unless notice of true character and value thereof is given and same is entered in the bill of lading.

FOURTH: Shippers shall be liable for any loss or damage to ship or Cargo caused by inflammable, explosive or other dangerous goods, shipped without full disclosure of their nature whether such shipper shall have been aware of it or not, and whether such shipper be principal or agent; and such goods may be thrown overboard or destroyed at any time without compensation.

FIFTH: The Carrier shall have a lien on the goods for all loss or damages which the Ship or Cargo may incur or suffer by reason of the incorrect or insufficient marking of packages or description of their weight or contents.

SIXTH: Goods once received for shipment cannot be taken away by the shipper except upon payment of the full freight, damages and expenses sustained by the Ship or Cargo through such taking away.

SEVENTH: In case Ship shall be prevented from reaching her destination by Quarantine, the Carrier may discharge the goods into any depot or lazaretto, and such a discharge shall be deemed a final delivery under this contract, and all the expenses thereby incurred on the goods shall be a lien thereon. In case of blockade or Interdict of the port of discharge or if without such blockade or interdict the entering of or discharging inthe port shall be considered by the master unsafe by reason of war or disturbance, of ice, or from any other cause, the master may land the goods at any other port which he may consider safe at the expense and risk of the owner of the goods. The master to have the right of accomplishing this bill of lading at any other port which he may consider safe.

EIGHTH: The ship has liberty of filling up and or bunkering at any port of ports in or out of the way.

NINTH: Full freight is due on damaged goods and on goods diminished by leakage, but no freight is due on any increase in bulk or weight caused by the absorbtion of water during the voyage.

TENTH: The carrier shall have a lien on all goods for payment of freight and charges, including dead freight, demurrage, forwarding, charges, charges for carriage to port of transhipment and the fines, damages and expenses mentioned in § 5 and § 7, and for General average claims, and, if on sale of goods at destination for freight and charges the proceeds, less duty, fail to cover such freight and charges, the Carrier shall be entitled to recover such difference from the shippers.

ELEVENTH: In the event of claims for loss, damage or short delivery the value shall be adjusted on the basis of the invoice value of the entire shipment adding expenses necessarily incurred.

TWELFTH: Freight and charges to be paid immediately on the landing of the goods, without any allowance, credit or discount sterling freight payable at current rate of Exchange on London quoted at noon on the day of the Ship's arrival, or, if a holiday, on the preceding day prepaid Freight cannot be reclaimed, Ship or Goods lost or not lost.

THIRTEENTH: Goods to be taken from the Ship by the Consignees directly they come up and in discharging the ship, and the Carrier's responsibility to cease, package by package, immediately the goods leave Ship's deck or tackle. If not taken from alongside by Consignees, they will be landed and deposited at the expense of the Consignee, and at his risk of fire, loss or injury on the dock, or in craft the Collector of the Port being hereby authorised to grant a general order for the discharge immediatidly after the entry of the ship.

FOURTEENTH: Parcels for different Consignees, collected and made up in single packages, addressed to one party for delivery in America, for the purpose of evading payment of parcel freight, will, upon examination by the Customs, be charged with the proper freight on each parcel.

AND FINALLY: In accepting this Bill of Lading, the Shipper, Owner and Consignee of goods agree to be bound by all its stipulations, exceptions, and conditions, whether written or printed, as fully as if they were all signed by such Shipper, Owner or Consignee.

IN WITNESS WHEREOF the Master or Agent of the said Ship has affirmed to three Bill of Lading, all of this tenor, and date, one, of wich being accomplished the other to stand void.

Filling up only in ports on the way Westwards of Newyork

Dated in MESSINA the 10 day of June 1920

For the Master

Claimants Ex. B
(Back)

DELIVER TO Goldman Sachs & Co.

per pro GOLDMAN SACHS & CO.

Claimant's Exhibit B.

2749

(PHOTOSTAT)

2750

2751

Claimant's Exhibit C.

2752

LLOYD'S REGISTER OF SHIPPING.

Port NEW YORK

January 11, 1920.

This is to Certify that I have Surveyed the Steel Screw Steamer "WILLDOMINO" ex "War Convoy" 5755 tons gross register of Halifax, N. S. and that I have transmitted to the Committee of Lloyd's Register of Shipping, London, a Report, stating that all repairs recommended by me have been completed to my satisfaction, and that I
2753 have Recommended that she be continued as classed *100A1 without fresh record of survey subject to minor damage repairs being effected at Owners' convenience, being fit to carry dry and perishable cargoes.

H. W. WILKINSON,
Surveyor to Lloyd's Register.

This Certificate is issued upon the terms of the Rules and Regulations of the Society, which provide that—

"While the Committee use their best endeavours
2754 to ensure that the functions of the Society are properly executed, it is to be understood that neither the Committee nor the Society are under any Circumstances whatever to be held responsible for any inaccuracy in any report or certificate issued by the society or its Surveyors, or in any entry in the Register Book or publication of the Society, or for any error of judgment default or negligence of the Surveyors or other Officers, or Agents of the Society."

Claimants Ex. D

Claimants Exhib D

Expenses for winchmen etc. s/s "Will Domino" Oct 7 [illegible]

8 winchmen	1 day each	@ 25.–	Lit.	200.–
8 — " —	4 hours overt. = 32 hours	@ 3.50	"	112.–
8 Tallyclerks	1 day each	@ 27.50	"	220.–
8 — " —	4 hours overt. = 32 hours	@ 3.50	"	112.–
65 labourers	4 hours overtime = 260 –"–	–"–	"	910.–
4 winchmen	1 day each	@ 25.–	"	100.–
4 Tallyclerks	" " "	" 27.50	"	110.–
1800 pieces wood		@ 0.35	"	630.–
			Lit.	2394.–

(Drainage bill)

Messina 11° June 1920

[illegible] [illegible]

56

"Willdomino"
Messina
June 11th 1920

Messrs Fratelli Bonanno.
Dear Sir
Please pay bearer as follows

June 10th 1920
Eight Winchmen } One day four hours
Eight Tally Clerks } " " " "
Sixty five labourers } Four hours overtime

June 11th
4 Winchmen } One day
4 Tally Clerks }

Also pay for 1800 Eighteen hundred pieces of cord wood for stowing casks

I oblige
J. Bailey
Master

Claimant's Exhibit D.

2755

(PHOTOSTAT)

2756

2757

2758

Cover of Claimant's Exhibit E-1.

VOYAGE 4—WILLIAMS STEAMSHIP CO., INC.

CHIEF OFFICER'S LOG BOOK

Steamship "Willdomino"

2759

2760

Claimant's Exhibit E-1.

2761

WILLIAMS S. S. CO., INC.

CHIEF OFFICER'S LOG BOOK

OF THE

Steamship "Willdomino" of Halifax, N. S.

Tons Registered 4173 Registered No. 141302

ON A VOYAGE

From New York & Norfolk Virginia to Marseilles & Palermo & Messina & Gibraltar 2762

Commanded by Capn J Beeby

Commencing April 29th 1920

Ending June 14th 1920

Kept by J. Thirkell Chief Officer

Draught			ft. ″		ft. ″	
of water	leaving New York	forward	7- 0	aft	15- 5	
"	arriving at Norfolk	forward	7- 0	aft	15- 4	
"	leaving Norfolk Va	forward	24- 8	aft	24- 8	
"	arriving at Marseilles	forward	23- 2	aft	24- 2	
"	leaving Marseilles	forward	8-10	aft	16-00	
"	arriving at Palermo	forward	8- 8	aft	15- 9	2763
"	leaving Palermo	forward	10-10	aft	18-00	
"	arriving at Messina	forward	10-10	aft	18-00	
"	leaving Messina	forward	13- 2	aft	19-00	

Claimant's Exhibit E-1.

2764 **LOG OF THE S. S. "WILLDOMINO" at New York**

Thursday April 29th 1920

A.M.—Mod sly wind & fine weather
8—Repairs continued, 1 Gang in Engine room, 1 Gang on Bilges, 1 Gang on Bulkhead, 1 Gang Electricians, 1 Gang Caulkers on Bridge Deck, 1 Gang busy with Poop Awning Stanchions
Crew busy getting stores on board all day long
Fresh water tanks are filled up
Carpenter employed at his trade (Signed on crew this
2765 day)
Engineer Gang and Electricians working all night
Quartermaster on night duty
Day ends with mod winds and fine weather

Friday April 30th 1920

A.M.—Moderate wind & fine weather
Repairs continued as usual. Crew variously employed
Paid off old & signed on new 3rd Officer (Mr. Moller)
All Ballast Tanks pumped up by engineers
1 Gang working all night in Engine room on Engine work
Day ends with mod wind & Rain
2766 All new crew on board this day
Quartermasters on duty day & night
Ship & moorings attended to

Tanks & Bilges sounded A.M. and P.M.
Lights & lookouts attended to

Claimant's Exhibit E-1.

2767

2768

2769

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2770 **LOG OF THE S. S. "WILLDOMINO" from New York to Norfolk, Virginia**

Date Sat. 1st May 1920

	Hour	Log	Course		Wind	Barometer
	A.M.		Stand.	Steer'g	Direct	
	11		S25°W		NNW	29.47
	12	12	"		"	29.49
	P.M.					
	1		S25°W		Var	
	2		"		SW	
	3		S30W		WNW	
2771	4	34	"		"	29.50
	5		"		NW	
	6		"		"	
	7		"		"	
	8	68	"		"	29.53
	9		"		"	
	10		S27W		"	
	11				"	
	12	103			"	29.62

(Running lights burning sunset to sunrise)

2772 Tanks & Bilges sounded A.M. & P.M.

Claimant's Exhibit E-1.

A.M.—Mod wind & Rain 2773
7.30—Pilot boarded & singled up moorings
7.45—Let go from Wharf & proceeded. 3 Tugs in assistance
8.40—Cleared Erie Basin & discharged Tugs & proceeded Full speed
10.30—Discharged Pilot off Ambrose Chnel L.V. & proceeded on voyage
10.45—Set course S25°W & streamed log abm of Scotland L.V.

11.30—Passed American Fleet bound north

Noon—Mod wind & Sea & fine clear weather 2774

P.M.
1.00—Sea Girt LH. Abm dist 10 miles Log 9
2.55—Barnegat Lt Hs Abm dist 4″ Log 24 a/c S25W
4—Light wind Smooth sea & fine clear weather
5.30—Absecon Lt Hs. Abeam dist 11 miles
8—Similar fine weather & conditions
8.30—N.E. End L.V. Abm distant 1 mile Log 73
9.40—Five Fathom Bank L.V. Abm dist 2 mils Log 82 a/c S27W
Midnight Fenwick Sh. L.V. Abm distant 5 miles
Light wind Smooth sea & fine clear weather 2775

J. THIRKELL Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2776 **LOG OF THE S. S. "WILLDOMINO" from New York to Norfolk Virginia**

Date Sunday 2nd May 1920

	Hour A.M.	Log	Course Stand.	Steer'g	Wind Direct	Barometer
	1		S27°W		NW	
	2		S49W		"	
	3		Stopped for Engine Repaired		"	
	4	135	"		"	29.63
2777	5		S49W		"	
	6		"		SW	
	7		"		"	
	8	163	"		"	29.67
	9		"		"	
	10		Various		"	
	11		"		"	
	12		"		"	29.67

Latitude-Longitude: Off Cape Henry. Course: Various. Distance: 248. Speed 10.2K. Running Time 24.6.

	P.M.					
2778	1		Pilots Orders		SW	
	2		Various		"	
	3		Courses		"	
	4		At Anchor		"	29.64
	5		"		"	
	6		"		"	
	7		"		"	
	8		"		"	29.63
	9		"		"	
	10		"		"	
	11		"		"	
	12		"		"	29.60

(Running lights burning sunset to sunrise)

Claimant's Exhibit E-1.

A.M 2779
Tanks & Bilges sounded A.M & P.M.
3.15—Winter Quarter L-V. Abm dist 5 miles Log 31 a/c S49W
3.38—Stopped for engine repairs (burst pipe)
4—Light wind & smooth & fine clear weather S/S stopped. Engineers repairing burst pipe
4.42—Repairs affected Engines Full speed on voyage
8—Light airs Smooth sea & fine clear weather
10.15—Cape Charles L-V. Abm dist 2 miles. Hauled in log
11.55—Tail of Shoe L-V. Abm dist 1 mile.
Noon—Fine weather s/s stopped awaiting for Pilot boat 2780
P.M.
12.15—Received Pilot & proceeded towards Hampton Rds for Orders
2.45—Engines Stop
2.55—Came to Anchor in Hampton Rds 45 fthms Chn Stbd Anchor
Light wind Smooth sea & fine clear weather
8—Similar weather Officers & Quartermasters on Watch
Midnight—Similar weather & Conditions Officers & Quartermasters on watch

2781

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2782 **LOG OF THE S. S. "WILLDOMINO" from New York at Norfolk, Virginia**

Date Monday 3rd May 1920

A.M.—s/s at anchor in Hampton Roads 45 fthms Chn stbd anchor
Fresh Breeze & fine clear weather s/s awaiting loading berth at Norfolk Virginia
Captn. Beeby relieved Captn. Welch this day as Master
Quartermasters & Officers on duty day & night
Day ends with light breeze & fine Clear weather
2783 Tanks & Bilges, Anchor lights & lookout carefully attended to

Tuesday 4th May 1920

A.M.—Light wind & fine weather, s/s at anchor in Hampton Rds
P.M.
12.30—Received 2 Tugs Dauntless & Chandler & Pilot in charge
12.45—Commenced Heaving up Anchor (no main steam)
1—Anchor up. s/s under weigh bound to Lamberts Pt. to load
2784 2.15—Anchored off L.P. Norfolk Coal Pier
2.30—Received 2 Fresh Tugs McCasleigh (Pocohontas) & hove up anchor
3—All moored at Pier 4 Coal Pier Norfolk
4.15—Commenced loading coal No 2. 5.35 No 4 5.40 P.M. Lower Bunker 4.50 No 1 & No 5
8—Commenced amid Bunker & Working All night loading
Shore night watchman on night duty also Quartermasters
Engineers pumping out all Water Ballast

Claimant's Exhibit E-1.

Wednesday 5th May 1920 2785

A.M.—Light wind & fine weather
Loading coal continues at all hatches & bunkers
1—finished lower hold Bunkers
1.20—Commenced cargo in No 3 Tween deck
6.30—All Ballast tanks sounded & bilges sounded, in the presence of the master Chief officer & Chief Engineer
Fresh Water tanks filled up this day
11.40—Finished cargo in No III Tween decks and commenced tipping Bunkers in Shelter deck bunker space
2786
2.30—Finished loading at No II Hold
4.15—Finished loading at No III Hold
7.10—Finished Amidship Bunkers & side bunkers
9.00—Completed loading. All Cargo & Bunkers in All Ballast Tanks & bilge dry
9.15—Unmoored & proceeded 2 Tugs & Pilot in Charge (no main steam)
11.45—All moored alongside Pier I at Norfolk
Quartermasters on duty day & night
Ship & moorings carefully attended to
Day ends with light wind & fine weather
Drinking Water
Last Filled 2787
Norfolk

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2788 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Date Thursday 6th May 1920

	Hour A.M.	Log	Course Stand.	Wind Direct—Force		Barometer	Temperature Air
	1			North	3		
	2			"			
	3			"			
	4			"			
	5			"			
	6			"			
2789	7		Various	"		30.09	52°
	8		"	NE	3		
	9		"	"		30.11	
	10	82	E¾S	"			58
	11		"	"			
	12	110	"	"	3	30.16	59

Latitude N. 36°-55′ Longitude 75°-42′W Course: Various. Distance 18 Speed: 10.2K Running Time: 1H-45′

	P.M.						
	1		E¾S	East	3		
	2		"	"			
2790	3		"	"			
	4	30	"	"	3	30.15	
	5		"	"			
	6		N86°E	"			
	7		N90E	"			
	8	59	"	"	3	30.10	
	9		"	SE			
	10		"	"			
	11		"	"			
	12	90	"	"	3	30.07	

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Bunkers attended to 7 A.M.

Claimant's Exhibit E-1.

Received Pilot. Unmoored & left the wharf with 2 Tugs assisting & proceeded towards Cpe Henry, Pilot directing 2791

10.15 A.M.—Discharged Pilot off Cpe Henry & proceeded on voyage

Set course E¾S streamed log 82

Moderate wind & sea & fine Clear weather

Noon—Similar weather & Condition prevail

P.M.

4—Gentle Breeze moderate sea & fine clear weather

6.20—a/c N86E

7.20—a/c East

8—Gentle Breeze, Moderate sea & clear weather 2792

Midnight—Similar fine weather & Conditions prevail

2793

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2794 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Date Friday 7th May 1920

	Hour	Log	Course	Wind		Barometer
	A.M.		Stand.	Direct—Force		
	1		East	ExN		
	2		"	"		
	3		"	"		
	4	120	"	"	2	30.00
	5		"	ENE		
	6		"	"		
2795	7		"	"		
	8	150	"	"	3	30.01
	9		"	"		
	10		"	"		
	11		"	"		
	12	182	"	"	3	30.04

Latitude 37°14'N Longitude 71°49'W Course N84°E Distance 187 miles speed 7.45 K Running Time 23H-44'

	P.M.					
	1		East	East		
	2		"	"		
2796	3		"	"		
	4	31	"	"	3	30.03
	5		"	ESE		
	6		S88E	"		
	7		"	"		
	8	59	"	"	4	30.00
	9		"	"		
	10		"	"		
	11		Stopped	"		
	12	86	"	"	4	29.99

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Bunkers strictly attended to

Claimant's Exhibit E-1.

A.M. 2797
4—Light Airs Smooth sea & fine clear weather
8—Gentle Breeze, Smooth sea & fine clear weather
Noon—Similar fine weather prevails
P.M.
4—Gentle Breeze, Smooth sea & fine clear weather
6.30—a/c S88E
8—Mod wind & sea & clear weather
11.25—Engines stopped for engine repairs
Mod wind & sea & clear Wr.
Engines stopped (Engineers Affecting Repairs)

2798

2799

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2800 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Date Saturday 8th May 1920

	Hour A.M.	Log	Course Stand.	Wind Direct—Force		Barometer
	1		S88°E	SE		
	2		"	"		
	3		"	"		
	4	112	"	"	4	29.95
	5		"	"		
	6		"	"		
2801	7		"	"		
	8	142	"	"	5	29.97
	9		"	"		
	10		"	S8E		
	11		"	"		
	12	167	"	"	5	29.98

Latitude 38°2'N Longitude 67°15'W Distance 220 Miles
Speed 9.64K Running Time 22H-44M

	P.M.					
	1		S88°E	S8E		
	2		"	"		
	3		"	"		
2802	4	24	"	"	5	29.98
	5		"	"		
	6		"	"		
	7		S84E	"		
	8	50	"	"	4	29.94
	9		"	"		
	10		"	"		
	11		"	"		
	12	80	"	"	4	29.89

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Bunkers attended to

Claimant's Exhibit E-1.

A.M. 2803
0.23—Engines Full speed ahead, Repairs effected
4—Moderate wind & Sea & clear weather
8—Fresh Breeze, moderate sea, & clear weather
Noon—Fresh Breeze, moderate seas & Clear weather
P.M.
4—Fresh Breeze Moderate sea & Clear weather
7.20—a/c S84E
8—Moderate wind & sea & Clear weather
Midnight—Similar wind & weather continues

2804

2805

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2806 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Date Sunday 9th May 1920

	Hour A.M.	Log	Course Stand.	Wind Direct—Force		Barometer
	1		S84°E	S8E		
	2		"	"		
	3		"	"		
	4	108	"	"	4	29.86
	5		"	"		
2807	6		"	"		
	7		"	"		
	8	135	"	"	5	29.80
	9		"	South	7	
	10		"	"		
	11		"	"		
	12	162	"	"	8	29.41

Latitude 38°43'N Longitude 64°5'W Course N75E Distance 155 miles Speed 6.51K Running Time 23H-48M

	P.M.					
	1		S84°E	South		
2808	2		"	"		
	3		"	"		
	4	16	"	"	8	29.55
	5		"	"	9	
	6		Hove to	"		
	7		Engines Slow	"		
	8	20	"	"	10	29.44
	9		"	SSW		
	10		"	"		
	11		"	"		
	12		"	SW	10	29.43

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Bunkers attended to

Claimant's Exhibit E-1.

A.M. 2809

4—Moderate wind & sea & clear & cloudy weather

8—Fresh Breeze, Slight sea & clear & Overcast weather

9—Wind & sea Increasing to mod Gale Decks flooded

Noon—Fresh Gales, High sea, Overcast & Rain squalls. decks continually swept by seas

P.M.

4—Fresh Gale High Cross & Confused sea & Heavy Rain s/s shipping water fore & aft

Decks continually swept by heavy seas

5—Strong Gale, decks swept by heavy seas, washed away No I & No II tarpaulins

Eased engines. All hands securing hatches again 2810

6.30—Shipped Heavy sea amidship & washed Stbd Lifeboats out of chocks Bending Davits & damaging Boats & Grips & Chocks. All midships Houses Badly strained, & washed away No III & No IV Tarpaulins. All Hands securing damage.

Whole Gale, Engines eased, ship hove to, decks flooded. (Broke & Bent Rails Amidships)

Midnight—Gale Continues, s/s labouring heavily, engines eased, ship Hove to

2811

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2812 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Date Monday 10th May 1920

	Hour A.M.	Log	Course Stand.	Wind Direct—Force		Barometer
	1		Hove to	SSW	8	
	2			"	6	
	3		S84°E	NW	5	
	4		"	"		29.55
	5		"	"		
2813	6		"	"		
	7		"	"		
	8	48	"	"	4	29.73
	9		S78E	"		
	10		"	"		
	11		"	"		
	12	72	"	"	3	29.86

Latitude 38°51'N Longitude 61°16'W Course N86E Distance 130 Speed 5.4K Running Time 23H-49M

	P.M.					
	1		S74E	NW		
	2		"	"		
	3		"	"		
2814	4	24	"	"	2	29.90
	5		"	"		
	6		"	"		
	7		"	"		
	8	50	"	"	3	29.94
	9		"	"		
	10		"	"		
	11		"	"		
	12	79	"	South	1	29.95

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Bunkers attended to

Claimant's Exhibit E-1.

A.M.—Wind & sea gradually moderating 2815
3—Wind shifts to NW. Moderating
3.30—ENGINES put Full speed again, Course S84°E
4—Fresh Breeze, Heavy Confused sea, decks flooded & Rain squalls
8—Moderate wind, Heavy Confused sea & clear Wr. decks flooded. Vessel labouring heavily. 8/5 A.M. a/c S78°E
11.30—Fire observed in Port Bunker. Put on fire hose & Extinguished same.
Noon—Gentle Breeze, heavy cross swell & clear weather a/c S74°E
P.M. 2816
Engines Eased & Ship Hove to 8 hours 30 minutes during the 24 Hrs
4—Light wind, Heavy cross swell, & fine clear weather
6—Port Bunkers on Fire, 6.20—Fire Extinguished.
8—Gentle Breeze Moderate sea & clear weather
Midnight—Light Airs, moderate sea, overcast & clear weather

2817

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2818 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Date Tuesday 11th May 1920

	Hour	Log	Course	Wind		Barometer
	A.M.		Stand.	Direct—Force		
	1		S74E	Var		
	2		"	"		
	3		"	"		
	4	108	"	"	1	29.92
	5		"	"		
	6		"	"		
2819	7		"	"		
	8	132	"	Calm	0	29.97
	9		"	"		
	10		"	"		
	11		"	"		
	12	160	"	"	0	29.96

Latitude 39°15′N Longitude 57°28′W Course N82E Distance 179 miles Speed 7.53K Running Time 23H-45M

	P.M.					
	1		S72E	SE		
	2		"	"		
2820	3		"	"		
	4	28	"	"	1	29.89
	5		"	"		
	6		"	"	3	
	7		"	"		
	8	54	"	"	3	29.84
	9		"	"		
	10		"	"		
	11		"	"		
	12	84	"	South	3	29.82

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Bunkers attended to

Claimant's Exhibit E-1.

A.M. 2821

4—Light airs. Smooth sea & fine clear weather

8—Calms, Smooth sea & fine clear weather

Noon—Similar Weather & Conditions a/c S72E

P.M.

4—Light airs, Smooth sea & Clear weather

8—Gentle Breeze, Smooth sea & fine clear Wr.

Midnight—Similar weather & Conditions continue

2822

2823

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2824 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Date Wednesday 12th May 1920

	Hour	Log	Course	Wind		Barometer
	A.M.		Stand.	Direct—Force		
	1		S72°E	South		
	2		"	"		
	3		"	"		
	4	112	"	"	3	29.73
	5		"	"		
	6		"	SSW		
2825	7		"	"		
	8	140	S70°E	"	3	29.73
	9		"	"		
	10		Stopped for	"		
	11		Repairs	"		
	12	149	"	West	4	29.69

Latitude 39°23'N Longitude 53°5'W Course N8SE Distance 204 miles Speed 9.52K Running Time 21H-23M

	P.M.					
	1		S70°E	WSW		
	2		"	"		
2826	3		"	"		
	4	15	"	"	4	29.64
	5		"	"		
	6		"	"		
	7		"	"		
	8	38	"	"	5	29.61
	9		"	"		
	10		"	"	6	
	11		"	"		
	12	59	"	"	6	29.65

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilations of Holds & Cargo attended to

Claimant's Exhibit E-1.

A.M. 2827

4—Gentle Breeze. Moderate sea & clear weather

8—Gentle beam wind, mod sea, & clear Weather a/c S70°E

9.40—Stopped Engines to blank off Flange in Engine-room

Moderate wind & sea clear weather

P.M.

12.30—Engines half speed ahead

4—Moderate wind & sea & Clear weather

8—Fresh Quarterly breeze, moderate sea & Clear weather

Strong Breeze, Rough Cross sea & Cloudy Wr. Shipping water fore & Aft. 2828

2829

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2830 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Date Thursday 13th May 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer	Temperature Air
	1		S70°E	North	4		
	2		"	"			
	3		"	"			
	4	76	"	"	3	29.64	
	5		"	NNW			
	6		"	"			
2831	7		"	"			
	8	99	"	"	3	29.74	
	9		"	"			
	10		"	"			
	11		"	"			
	12	121	"	"	3	29.83	

Latitude 39°30'N Longitude 49°38'W Course N8E Distance 161 miles Speed 6.94K Running Time 23H-11M

	P.M.						
	1		S64°E	NNW			
	2		"	"			
2832	3		"	"			
	4	20	"	"	2	29.86	
	5		"	"			
	6		"	"			
	7		"	SE	2		
	8	43	"	"	2	29.87	
	9		"	"			59
	10		"	"			
	11		"	"			
	12	70	"	"	2	29.85	60

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Bunkers attended to

Claimant's Exhibit E-1.

A.M. 2833

4—Mod to Gentle Breeze & Moderate Cross Sea & Clear & Cloudy Weather

8—Similar Weather & Conditions

Gentle Breeze, Smooth sea & fine Clear Weather

Noon—a/c S64°E

P.M.

4—Light airs, Smooth sea, & fine Clear weather

8—Similar Weather & Conditions

Light Airs, Smooth sea & Clear & Cloudy weather

2834

2835

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2836 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Date Friday 14th May 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer	Temperature Air
	1		S64°E	S8E			
	2		"	"			62°
	3		"	S			
	4	98	"	"	4	29.77	63
	5		"	S8W			
2837	6		"	"			68
	7		"	"			
	8	131	"	"	5	29.82	69
	9		"	"			
	10		"	"			
	11		"	"			
	12	163	"	South	3	29.87	67

Latitude 39°32'N Longitude 46°5'W Course N89°E Distance 164 miles Speed 6.58K Running Time 23H-46m

	P.M.						
	1		S65°E	South			
2838	2		"	"			
	3		"	"			
	4	31	"	"	3	29.84	71°
	5		"	SW			
	6		"	"			
	7		"	"			
	8	60	"	"	4	29.90	64
	9		"	"			
	10		"	"			
	11		"	"			
	12	93	"	"	6	29.91	64

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Bunkers attended to

Claimant's Exhibit E-1.

A.M. 2839

1.16—Engines Full speed ahead.

4—Moderate wind & sea & clear weather & passing rain

8—Fresh Breeze. Moderate sea & Clear & Overcast weather

Noon—Gentle Breeze Moderate sea & Clear weather a/c S65°E

4—Gentle Breeze, Moderate sea, & fine Clear weather

8—Moderate wind & sea & clear & Cloudy weather

Fresh Breeze, Moderate sea & Clear weather

2840

2841

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2842 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Date Saturday 15th May 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer	Temperature Air
	1		S65°E	WSW			
	2		"	"			
	3		"	"			
	4	124	"	"	3	29.89	64°
	5		"	"			
2843	6		"	"			
	7		"	"			
	8	152	"	"	4	29.94	71°
	9		"	"			
	10		"	"			
	11		"	"			
	12	184	"	"	3	29.98	70°

Latitude 39°37'N Longitude 41°45'W Course N88°E Distance 202 miles Speed 8.52K Running Time 23H-43m

	P.M.						
	1		S63°E	WSW			
	2		"	"			
2844	3		"	"			
	4	32	"	"	3	29.97	70°
	5		"	"			
	6		"	"			
	7		"	"			
	8	61	"	"	4	30.00	66
	9		"	"			
	10		"	"			
	11		"	"			
	12	96	"	"	4	30.00	64

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Bunkers attended to

Claimant's Exhibit E-1.

A.M. 2845

4—Gentle Breeze, Moderate sea, & clear & Cloudy weather

8—Moderate Quantity wind & sea, & clear weather

Noon—Gentle Breeze, Moderate sea, Overcast & Clear Wr. a/c S63°E

P.M.

4—Moderate wind & following sea & Clear Weather

8—Similar Wind & Weather prevails

Moderate wind & sea & Clear weather, sky cloudy

2846

2847

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2848 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Date Sunday 16th May 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer	Temperature Air
	1		S63°E	WSW			
	2		"	"			
	3		"	"			
	4	130	"	"	4	29.96°	62°
	5		"	"			
	6		"	"			
2849	7		"	"			
	8	164	S67°E	"	4	29.99	70°
	9		"	"			
	10		"	"			
	11		"	"			
	12	197	"	"	4	30.02	70

Latitude 39°22'N Longitude 37°3'W Course S86°E Distance 220 miles Speed 9.26K Running Time 23H-41m

	P.M.						
	1		S74°E	WSW			
	2		"	"			
2850	3		"	"			
	4	33	"	"	3	30.01	86°
	5		S80E	"			
	6		"	"			
	7		"	"			
	8	62	"	"	3	30.00	66
	9		"	"			
	10		"	"			
	11		"	"			
	12	94	"	"	3	30.00	66

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Bunkers attended to

Claimant's Exhibit E-1.

A.M. 2851
4—Moderate wind & sea & fine clear weather
8—Similar weather & Conditions a/c S67°E
Noon—Moderate wind & sea & Clear weather a/c S74°E
P.M.
4—Gentle Breeze, Mod sea & Clear weather a/c S80°E
8—Similar Weather & Conditions prevail
Gentle Breeze, Moderate sea, & Clear Weather

2852

2853

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2854 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Date Monday 17th May 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		S80°E	WSW		
	2		"	"		
	3		"	"		
	4	124	"	"	3	29.96
	5		"	"		
	6		"	"		
2855	7		"	"		
	8	156	"	"	4	30.00
	9		"	"		
	10		"	"		
	11		"	"		
	12	187	"	East	2	30.05

Latitude 49°4′N Longitude 32°25′W Course N79°E Distance 219 miles Speed 9.32K Running Time 23H-30m

	P.M.					
	1		S65°E	East		
	2		"	"		
2856	3		"	"		
	4	33	"	"	3	30.06
	5		"	"		
	6		"	"		
	7		S55°E	"		
	8	64	"	"	4	30.08
	9		"	"		
	10		"	"		
	11		"	"		
	12	97	"	"	4	30.11

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Bunkers attended to

Claimant's Exhibit E-1.

A.M. 2857
3.25—Stopped for Engine purposes, 3.37 A.M. Engines Full speed
4—Gentle Breeze, Moderate sea & Clear weather
8—Similar Weather & Conditions prevail
Noon—Light Airs, Smooth sea & clear & Cloudy weather a/c S65°E
P.M.
4—Gentle Breeze, Smooth sea, & clear weather
7—Corvo Azores Isld abm. S25°W dist 17 mls Log 57 a/c S55°E
8—Moderate wind, Smooth sea & Clear weather
Moderate wind, Smooth sea & Clear & Cloudy weather 2858

2859

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2860 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Date Tuesday 18th May 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		S55°E	East		
	2		"	"		
	3		"	"		
	4	130	"	"	3	30.10
	5		"	"		
2861	6		"	ESE		
	7		"	"		
	8	163	S52E	"	4	30.14
	9		"	"		
	10		"	"		
	11		"	South		
	12	196	"	"	2	30.20

Latitude 39°27'N Longitude 28°00'W Course S80°E Distance 207 miles Speed 8.73K Running Time 23H-42m

	P.M.					
	1		S55°E	South		
	2		"	"		
2862	3		"	"		
	4	31	"	"	2	30.21
	5		"	SE		
	6		"	"		
	7		"	"		
	8	61	"	"	3	30.18
	9		"	"		
	10		"	"		
	11		"	"		
	12	95	"	"	3	30.16

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Bunkers attended to

Claimant's Exhibit E-1.

2863

A.M.
4—Gentle breeze, Smooth sea, & Clear weather
7.40—a/c S52°E
8—Moderate wind, Smooth sea, & Clear Wr. sky Cloudy
Noon—Light Airs. Smooth sea, & Clear weather a/c S55°E

P.M.
4—Light airs. Smooth sea, & fine Clear weather
8—Gentle breeze, Moderate sea, & Clear Wr. Sky Cloudy
Midnight—Similar Weather & Conditions

2864

2865

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2866 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Date Wednesday 19th May 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		S55°E	SE		
	2		"	"		
	3		"	"		
	4	129	"	East	2	30.13
	5		"	"		
2867	6		"	"		
	7		"	"		
	8	160	"	"	4	30.15
	9		"	"		
	10		"	"		
	11		"	"		
	12	193	"	"	3	30.18

Latitude 38°41'N Longitude 23°35'W Course S77°E Distance 210 miles Speed 8.86K Running Time 23H-42m

	P.M.					
	1		S60°E	East		
	2		"	"		
2868	3		"	"		
	4	32	"	"	3	30.18
	5		"	"		
	6		"	NE		
	7		"	"		
	8	60	"	"	4	30.18
	9		"	"		
	10		"	"		
	11		"	"		
	12	93	"	"	3	30.19

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo attended to

Claimant's Exhibit E-1.

A.M. 2869
4—Light breeze, smooth sea & Clear weather, sky overcast.
8—Moderate wind & sea & passing Rain
Gentle breeze, Smooth sea, & fine clear weather
Noon—a/c S60E
P.M.
4—Gentle breeze, smooth sea, & fine clear weather
4.30—Boat Drill, All Boats swung out, Crew exercised & stationed
7.30—Passed the 3 Masted Barque "Taifun" of Sweden, in ballast Steering SW. from Antwerp. Wishing to be reported, in Lat 38½°N Long 22°15'W 2870
Moderate wind & sea & fine clear weather
Midnight—Similar weather & Conditions

2871

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2872 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Date Thursday 20th May 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		S60°E	NE		
	2		"	"		
	3		"	"		
	4	124	"	"	4	30.14
	5		"	"		
	6		"	"		
2873	7		"	"		
	8	155	"	"	3	30.16
	9		"	"		
	10		"	"		
	11		"	"		
	12	186	"	"	3	30.16

Latitude 38°2'N Longitude 19°15'W Course S79°E Distance 209 miles Speed 8.82K Running Time 23H-43m

	P.M.					
	1		S60°E	NE		
	2		"	"		
2874	3		"	"		
	4	31	"	"	3	30.13
	5		"	"		
	6		"	NNE		
	7		"	"		
	8	59	"	"	4	30.11
	9		"	"		
	10		"	"		
	11		"	"		
	12	87	"	"	4	30.09

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Bunkers attended to

Claimant's Exhibit E-1.

A.M. 2875
4—Moderate wind, Smooth sea & Clear weather
8—Gentle Breeze Smooth sea, & fine Clear weather
Noon—Similar Weather & Conditions
P.M.
4—Gentle breeze, Smooth sea & fine Clear weather
8—Moderate Beam wind & sea & clear weather
Midnight—Similar Weather & Conditions

2876

2877

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2878 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Date Friday 21st May 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		S60°E	NNE		
	2		"	"		
	3		"	"		
	4	117	"	"	4	30.04
	5		"	"		
	6		"	"		
2879	7		"	"		
	8	146	"	"	5	30.05
	9		"	"		
	10		"	"		
	11		"	"		
	12	173	"	"	5	30.07

Latitude 37°19'N Longitude 15°30'W Course S76°E Distance 184 miles Speed 7.74K Running Time 23H-45m

	P.M.					
	1		S60°E	NNE		
	2		"	"		
2880	3		"	"		
	4	22	"	"	5	30.02
	5		"	"		
	6		"	"		
	7		S64E	"		
	8	46	"	"	6	29.98
	9		"	"		
	10		"	"		
	11		"	"		
	12	70	"	NE	6	29.92

(Running lights burning sunset to sunrise)

Tank & Bilges sounded A.M. & P.M.
Ventilation of Holds & Bunkers attended to

Claimant's Exhibit E-1.

2881

A.M.
4—Moderate wind & sea & Clear weather
8—Fresh Breeze, Slight Beam sea, & Clear Overcast
Noon—Similar Weather Conditions
4—Fresh Breeze, Rough cross sea, & clear weather
P.M.
6.50—a/c S64E
8—Strong Trades, Rough Beam sea & Clear Wr. Sky overcast vessel shipping water fore & aft.
Midnight—Similar weather & Conditions. Shipping water over main decks

2882

2883

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2881 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Date Saturday 22nd May 1920

Hour	Log	Course	Wind		Barometer
A.M.		Stand.	Direct	Force	
1		S64°E	NNE		
2		"	"		
3		"	"		
4	93	"	"	6	29.83
5		"	"		
6		"	"		
2885 7		"	"		
8	120	"	"	6	29.80
9		"	"		
10		"	"		
11		"	"		
12	147	"	"	5	29.75

Latitude 36°40′N Longitude 12°30′W Course S75°E Distance 150 miles Speed 6.3K Running Time 23H-48m

P.M.					
1		S66°E	NNE		
2		"	"		
2886 3		"	"		
4	29	"	"	4	29.70
5		"	"		
6		"	"		
7		"	"		
8	59	"	"	3	29.67
9		"	"		
10		"	"		
11		"	"		
12	88	"	"	3	29.64

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Bunkers attended to

Claimant's Exhibit E-1.

A.M. 2887

4—Strong Breeze, heavy beam sea, & clear weather
Vessel rolling heavily & shipping water fore & aft
8—Similar weather & conditions
Noon—Fresh Breezes Moderate sea & Clear weather, sky cloudy
Noon—a/cS66°E
P.M.
4—Moderate wind, heavy beam sea & Clear weather vessel shipping water fore & Aft
Midnight—Similar weather & Conditions

2888

2889

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2890 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Date Sunday 23rd May 1920

	Hour	Log	Course	Wind		Barometer
	A.M.		Stand.	Direct	Force	
	1		S66°	NNE		
	2		"	"		
	3		"	"		
	4	119	"	"	3	29.58
	5		"	"		
	6		"	"		
2891	7		"	"		
	8	149	"	"	3	29.60
	9		"	"		
	10		"	"		
	11		"	"		
	12	181	"	"	3	29.64

Latitude 36°7'N Longitude 8°30'W Course S80°E Distance 197 miles Speed 8.27K Running Time 23H-48m

	P.M.					
	1		S76°E	Calms		
	2		"	"		
2892	3		"	"		
	4	32	"	"	0	29.65
	5		"	"		
	6		"	"		
	7		"	SW		
	8	60	S70°E	"	4	29.62
	9		"	"		
	10		"	"		
	11		"	"		
	12	92	"	"	4	29.64

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Bunkers attended to

Claimant's Exhibit E-1.

A.M. 2893
4—Gentle breeze, Smooth sea & fine clear weather
8—Similar wind & Weather prevails
Noon—Gentle Breeze, moderate sea, & clear Wr. Sky cloudy a/c S76°E
P.M.
4—Calms, Smooth sea, & fine clear weather
8—Moderate wind & sea & Clear weather a/c S70°E
Midnight—Similar wind & weather as 8 P.M.

2894

2895

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2896 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Date Monday 24th May 1920

	Hour	Log	Course	Wind		Barometer
	A.M.		Stand.	Direct	Force	
	1		S70°E	SW		
	2		"	"		
	3		S79°E	"		
	4	133	"	"	3	29.62
	5		"	"		
2897	6		Various	"		
	7		through	"		
	8	157	Gib Straits	"	2	29.66
	9		S85°E	"		
	10		"	"		
	11		"	"		
	12	188	"	"	2	29.67

Latitude 36°9'N Longitude 4°46'W Course Various Distance 185 miles 7.79K Speed Running Time Running Time 23H-45m

	P.M.					
	1		East	NW		
	2		"	"		
2898	3		"	"		
	4	31	"	"	2	29.66
	5		N85E	"		
	6		"	West		
	7		"	"		
	8	61	"	"	3	29.64
	9		"	"		
	10		"	"		
	11		"	"		
	12	93	"	"	3	29.69

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Bunkers attended to

Claimant's Exhibit E-1.

A.M. 2899
2.35—a/c S79°E Log 113
4—Gentle breeze, Smooth sea, & clear weather
4.15—Trafalgar Abm. NxE dist 13 miles Log 26
4.55—Cpe Spartel Abm. SxW dist 7 miles Log 33
6.53—Tarifa Abm. NxW dist 1 mile Log 49 a/c East
8—Light airs, Smooth sea & fine clear weather
8.15—Gibraltar Rk. Abm dist 2½ miles a/c S85E Log 61 (Signalled)
Noon—Light Airs, Smooth sea, & fine Clear weather a/c East
P.M.
4—Light Airs, Smooth sea & fine Clear weather 2900
4.30—a/c N85E
8—Gentle breeze, Smooth sea & Clear Weather
8—Sacratef Lt Bore N33°W True
10—Sabinal Lt Bore N15°E True dist 17 miles
11.45—Cpe De Gata Bore N30°E True dist 17 miles
Gentle Breeze, Smooth sea & fine clear weather

2901

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2902 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Date Tuesday 25th May 1920

	Hour	Log	Course	Wind		Barometer
	A.M.		Stand.	Direct	Force	
	1		N85°E	WNW		
	2		N55°E	"		
	3		"	"		
	4	126	"	"	4	29.69
	5		"	"		
	6		"	"		
2903	7		"	"		
	8	158	"	"	2	29.74
	9		"	"		
	10		N40°	"		
	11		"	"		
	12	188	"	"	1	29.79

Latitude 37°28′N Longitude 00°50′W Course Various Distance 217 miles Speed 9.12K Running Time 23H-44m

	P.M.					
	1		N45°E	WNW		
	2		"	"		
2904	3		"	ENE		
	4	32	"	"	2	29.78
	5		"	"		
	6		"	East		
	7		"	"		
	8	61	"	"	2	29.80
	9		"	"		
	10		"	"		
	11		"	Calm		
	12	93	"	"	0	29.80

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Bunkers attended to

Claimant's Exhibit E-1.

A.M. 2905
1.45—Cpe De Gata abm dist 15 miles Log 108 a/c N55°E
4—Moderate wind, Smooth sea & fine Clear weather
8—Light Breeze, Smooth sea & fine clear weather
9.55—a/c N40°E Log 72
Noon—Similar wind & weather prevails a/c N45°E
P.M.
2.20—Cpe Palos Abm dist 1½ miles Log 20
2.39—Las Dormigas Abm dist 1¼ miles Log 22
4—Light Airs, Smooth sea & fine clear weather
8—Similar Weather & Conditions Prevail
Midnight Cpe San Antonio Abm dist 20 miles Log 93
Calms, Smooth sea & fine clear weather 2906

2907

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2908 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Wednesday May 26th 1920

Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
1		N45°	ENE		
2		"	"		
3		"	"		
4	125	"	"	2	29.80
5		"	"		
2909 6		"	"		
7		"	"		
8	155	"	"	2	29.86
9		"	"		
10		"	"		
11		"	"		
12	187	"	"	2	29.91

Latitude 39°54′N Longitude 2°2′E Course N43E Distance 200 miles Speed 8.4K Running Time 23H-49m

P.M.					
1		N43E	NE		
2910 2		"	"		
3		"	"		
4	31	"	"		29.88
5		"	"	2	
6		"	"		
7		"	"		
8	62	"	"	2	29.85
9		"	"		
10		"	"		
11		"	"		
12	94	"	"	2	29.82

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Bunkers attended to

Claimant's Exhibit E-1.

2911

A.M.
4—Light airs, Smooth sea & Clear weather
8—Similar Weather & Conditions
Noon—Light airs Moderate sea & Clear weather a/c N43°E

P.M.
4—Light Airs, Smooth sea & Clear weather
8—Similar Wind & Weather as 4 P.M.
Midnight—Light airs, moderate sea & fine clear weather

2912

2913

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles

Date Thursday May 27th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		N43°E	NW		
	2		"	"		
	3		"	"		
	4	126	"	Nly	3	29.75
	5		"	"		
2915	6		"	"		
	7		"	"		
	8	160	"	"	3	29.78
	9		"	"		
	10		"	"		
	11		"	"		
	12	192	"	"	3	29.78

Latitude 43°37'N Longitude 4°41'E Course N37°E Distance 202 miles Speed 8.48K Running Time 23H-50'

	P.M.					
	1		N41°E	Nly		
	2		"	"		
2916	3		"	"		
	4	32	N45E	"	2	29.73
	5		Various	"		
	6			"		
	7		Pilots Orders	"		
	8		at anchor	"		29.74
	9		"	"		
	10		"	"		
	11		"	"		
	12		"	"		29.74

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Bunkers attended to

Claimant's Exhibit E-1.

A.M. 2917

4—Gentle breeze, Smooth sea & Clear weather

4—St Sebastian Lt abm distant 18 miles Log 126

8—Similar wind & weather Continues

Noon—Gentle Breeze Mod sea & Clear weather a/c N41°E

P.M.

4—Smooth sea & fine Clear weather

5.50—Planier Isld Abm SE½E close 1·2 miles off.

6.15—Engines eased waiting for Pilot

6.30—Received Pilot & proceeded towards anchorage

7.15—Came to anchor stbd Anchor 4 shackles, finished with Engines 2918

Day ends with light airs Smooth & fine

Sea Watches Kept as usual all night

Anchor lights strictly attended to

2919

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2920 **LOG OF THE S. S. "WILLDOMINO" from Norfolk Virginia to Marseilles**

Friday May 28th 1920

A.M.—Calms Smooth & fine s/s at Anchor off Marseilles
6.10—Received Pilot. Engines stand by & proceeded to heave up anchor. 7.30 A.M. Anchor up & proceeded
7.45—Engines slow ahead. 7.50 let go Port Anchor, received 2 Tugs assisting also Boatmen.
8.55—All moored in Berth alongside s/s Belgrano
2921 2 anchors for'ard & moored to Buoy Aft, inside Marseilles Port
No Cargo discharged this day (no work)
Received Cranes & lighters Alongside also Received 160 Tons Fresh Water
Day ends with light winds & fine weather
Quartermasters on duty day & night.

Saturday May 29th 1920

A.M.—Light Airs & fine Weather
7—Commenced discharging all Hatches 5 Cranes 5 Gangs (using Rope Runners) and using 2 Winches
2922 at No III & 1 winch at No I Hold (3 shore winchmen)
11—Ceased work for dinner
Noon—Resumed again into Lighters
P.M.
5—No I & III & IV & V Hatches Ceased work for the day
6—No II Ceased Work for the day
Day ends with light winds & fine clear weather
Quartermasters on duty day & night
Tanks & Bilges sounded A.M. & P.M.

Claimant's Exhibit E-1.

Sunday May 30th 1920 2923

A.M.—Day begins with light Nly wind & fine weather
7—Resumed discharging all Hatches 5 Cranes & 2 Winches
8—Stopped at No III to repair Stbd Bunker winch
9—Resumed at No III
11—Ceased for dinner
Noon—Resumed again at all Hatches
P.M.
4—Ceased discharging for the day
Day ends with fresh nly winds & fine weather
Quartermasters on duty day & night 2924
Ship & moorings carefully attended to
Tanks & Bilges sounded A.M. & P.M.
Used 5 Rope Runners this day discharging Cargo

Monday May 31st 1920

A.M.—Light wind & fine weather
7—Resumed discharging all Hatches 5 Cranes & 2 winches into lighters
11—Ceased for dinner
Noon—Resumed again at all Hatches
Noted Protest this day. (Using Rope Runners & 2 winches this day) 2925
P.M.
4—Ceased discharging at all Hatches
Day ends with Fresh Nly wind & fine weather
Quartermasters on duty day & night
Ship & Moorings carefully attended to
Engine Repairs Carried on this day by shore labour.
Tanks & Bilges sounded A.M. & P.M.

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

LOG OF THE S. S. "WILLDOMINO" from Norfolk at Marseilles

Tuesday June 1st 1920

A.M.—Moderate Nly wind & fine weather
7—Resumed discharging at all Hatches 5 Cranes
11—Ceased work for dinner. Noon Resumed at No II III & IV Hatches
Stevedore's men repairing damage to Hatch Beams Etc
Engineers running up all water Ballast
Repairs in engine room carried on by shore labour (Cleaning Boilers)
P.M.
4—Ceased discharging cargo for the day
Day ends with Fresh Nly breeze and fine clear weather
Quartermasters on duty day & night
Ship & Moorings strictly attended to

Wednesday June 2nd 1920

A.M.—Light breeze & fine clear weather
7—Resumed discharging with Cranes at No II & IV Hatches
10.30—Stopped at No 4 Hatch (No Lighters)
11—Ceased for dinner
Various delays during day in discharging, waiting for lighters
Noon—Resumed discharging at No II Hatch with Crane
P.M.
3—Resumed at No 4 Hatch
Stevedores men repairing damage to Hold Ladders in No 4
Shore labour Cleaning out Boilers Etc
5—Ceased discharging for the day
Day ends with light Breeze & fine weather
Quartermasters on Duty Day & Night
Tanks & Bilges sounded A.M. & P.M.

Claimant's Exhibit E-1.

Thursday June 3rd 1920 2929

A.M.
1—Resumed discharging at No II Hold
3—Ceased discharging
7—Resumed discharging with Cranes at No II & IV Hatches 2 Gangs
A.M.—Light wind & fine clear weather
7.30—Ceased discharging at No 2 Hatch
11—Ceased work for dinner
Noon—Resumed at No 5 Hatch
Various delays during day waiting for lighters
Cleaned out Port Fresh Water Tank
Received about 100 Tons Fresh Water this day for Drinking & Engine Purposes 2930
Steam Ordered for Saturday 5 A.M.
P.M.
5—No 5 Hold finished Ceased work for the day
Quartermasters on duty day & night
All Ballast Tanks Full Bilges sounded A.M. & P.M.
Day ends with light Wind & fine weather

Friday June 4th 1920

A.M.—Light wind & fine clear weather
7—Resumed discharging at No 2 & 4 Holds with Cranes
11—Stop for dinner 2931
Noon—Resumed again at No II & IV
1.45—Finished discharging No 2 Hatch
2—Commenced No I Hatch
2.30—Finished discharging No 4 Hatch
3—Finished Discharging No I Hatch
4—Completed Discharging, All Cargo Out
Day ends with Strong NE Gale & Squally weather
Ship & Moorings Carefully Attended to
Quartermasters on duty day & night
Paid off Mr. Franklin 4th Engineer this day

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2932 **LOG OF THE S. S. "WILLDOMINO" from Marseilles to Palermo**

Date Saturday June 5th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	4			Nly	6	29.39
	5			"		
	6		Various	"		
	7			NW	5	
	8	0	S16°E	"		29.40
2933	9		"	"		
	10		"	"		
	11		"	"		
	12	34	"	"	5	29.45

Latitude 42°37′N Longitude 5°40′E Course Various Distance 49 miles Speed 10.1K Running Time 4H-51m

	P.M.					
	1		S16°E	NW		
	2		"	"		
	3		"	"		
	4	36	"	"		
2934	5		S20°E	"	5	29.45
	6		"	"		
	7		"	"		
	8	70	"	"	4	29.48
	9		"	"		
	10		"	"		
	11		"	"		
	12	106	"	"	3	29.49

(Running lights burning sunset to sunrise)

Tanks & Bilges Sounded A.M. & P.M.

Claimant's Exhibit E-1.

A.M. 2935
6—Received Pilot
6.30—Received 3 Tugs in attendance, blowing mod. NW Gale
6.45—Unmoored & commenced heaving up Anchors
7.20—Anchors up & proceeded out of harbour
8-9—Discharged Tugs & pilot & proceeded on Voyage
8.30—Planier Isld Bore N60E (True) dist 1 mile set Course S16E
8.30—Streamed log (o)
Noon—Fresh Breeze Moderate sea & fine clear weather
P.M.
4—Fresh Breeze Moderate sea & fine clear weather 2936
4.35—a/c S20E
8—Moderate wind & sea & Clear weather
Midnight—Gentle Breeze Smooth sea & fine Clear weather

2937

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2938 **LOG OF THE S. S. "WILLDOMINO" from Marseilles to Palermo**

Date Sunday June 6th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		S20°E	NW		
	2		"	"		
	3		"	"		
	4	143	"	"	3	29.48
	5		"	"		
2939	6		"	"		
	7		"	"		
	8	179	"	"	1	29.53
	9		"	"		
	10		"	"		
	11		"	"		
	12	215	"	"	3	29.25

Latitude 39°12′N Longitude 8°10′E Course S28°E Distance 235 miles Speed 9.86K Running Time 23H-50m

	P.M.					
	1		S25°E	NNW		
2940	2		S36E	"		
	3		S76E	"		
	4	36	"	"	4	29.51
	5		S81°E	"		
	6		"	"		
	7		"	"		
	8	68	S79°E	"	3	29.50
	9		"	"		
	10		"	"		
	11		"	"		
	12	105	"	"	3	29.52

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.

Claimant's Exhibit E-1.

A.M. 2941

3—Gentle breeze Smooth sea & fine Clear weather

8—Light airs Smooth sea & fine clear weather No I Hold flooring all lifted this day & Tank Top Cleaned & flooring replaced again by ship's Carpenter

Noon—Gentle Breeze Smooth sea & fine Clear weather a/c S25°E

P.M.

1.08—a/c S36°E

1.45—Sandals LH Abm dist 14′ Log 16

3.40—Toro Isld Abm distant 6 miles Log 33 a/c S76°E

Moderate wind & sea & clear weather 2942

4—a/c S81E

6.45—Cpe Spartivento Abm N1°E dist 7 miles Log 57

7.45—a/c S79°E

8—Gentle breeze Smooth sea & fine Clear weather

Midnight—Gentle Breeze Smooth sea & fine Clear weather

2943

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2944 **LOG OF THE S. S. "WILLDOMINO" from Marseilles to Palermo**

Date Monday June 7th 1920

	Hour	Log	Course	Wind		Barometer
	A.M.		Stand.	Direct	Force	
	1		S79°E	NNW		
	2		"	"		
	3		"	"		
	4	140	"	"	2	29.51
	5		"	SSE		
2945	6		"	"		
	7		"	"		
	8	175	"	"	3	29.56
	9		"	"		
	10		"	"		
	11		"	"		
	12	209	"	"	3	29.60

Latitude 38°19′N Longitude 12°20′E Course Various Distance 215 miles Speed 9.06K Running Time 23H-43M

	P.M.					
	1		S73°E	Various		
2946	2		"	"		
	3		"	"		
	4	34	"	"	1	29.61
	5		Various	"		
	6		"	"		
	7		"	"		
	8		Palermo	"		29.61

Tanks & Bilges Sounded A.M. & P.M.

Claimant's Exhibit E-1.

A.M. 2947
4—Light Airs Smooth sea & fine Clear weather
8—Gentle breeze Smooth sea & fine Clear weather
Noon—Similar weather & Conditions
a/cS73°E
55 miles to Palermo from Noon
P.M.
2.40—Cpe St Vito Abm dist 5 miles log 21
4—Light Airs Smooth sea & fine Clear weather
5.50—Rounded Cpe Gallo (close)
6.40—Received Palermo pilot & proceeded into harbour
7.25—Ship All moored stern on to Quay & 2 Anchors
for'ard finished with engines (all ready to load) 2948
Day ends with Light wind & fine weather
Quartermasters on duty day & night

2949

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2950 **LOG OF THE S. S. "WILLDOMINO" from Marseilles to Palermo**

Tuesday June 8th 1920

A.M.—Moderate wind & fine clear weather
8—Commenced loading in No II III IV & V Hatches Lemons
8 shore winch men employed driving winches
Crew cleaning out No I Bilges
9.40 to 10.40—Stopped for winch Repair at Stbd Bunker winch
2951 11.30—Commenced taking in Citrate Mag in No 4
14 men from shore cleaning holds
P.M.
6—Stopped loading Cargo for the day
Day ends with moderate wind & fine clear weather
Quartermaster on duty day & night

Wednesday June 9th 1920

A.M.—Light wind & fine weather
8—Resumed loading Lemons Etc at No 2 3 4 5 Hatches
8 shore winch men driving winches all day
11—Port No 5 Derrick broke (Eye in Heel carried
2952 away) putting derrick out of action (sent derrick down on deck)
9.25—No 5 winch stopped for repairs 9.55 Resumed again
Noon—Commenced loading at No I Hold Barrels of Citrate
14 men from shore cleaning holds
Course ExN Wind Nly Barometer 29.63

(Running lights burning sunset to sunrise)

Tanks & Bilges Sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-1.

Stevedore required numerous Rope Runners & Rope Slings for loading Cargo 2953

P.M.
1 to 1.30—Stopped for dinner
2.30—Ceased at No III for the day
8—Ceased at No 5 for the day
8.30—Ceased at No II & IV for the day
8.45—Ceased at No I for the day
8.50—Received pilot on Board
9—Unmoored Hove up anchors & proceeded to sea
9.50—Discharged Pilot & proceeded full speed Set Course East x North

2954

Mod wind & sea & fine clear weather
Drinking water last filled Palermo

2955

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2956 **LOG OF THE S. S. "WILLDOMINO" from Palermo to Messina**

Date Thursday June 10th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		East	North		
	2		"	"		
	3		"	"		
	4		"	"	2	29.62
	5		ExN	"		
2957	6		"	"		
	7		"	"		
	8		East	"	2	29.62
	9		Various	"		
	10		in Straits	"		
	11		of	"		
	12		Messina	"		

Latitude Messina Longitude Course Various Distance 120 miles Speed 9.87K Running Time 12H-10m

2958 Ventilation of Holds & Cargo strictly attended to

Tanks & Bilges sounded A.M. & P.M.

Claimant's Exhibit E-1.

A.M. 2959
1.5—Cefalu Lt Abm distant 9 miles
4—Light airs Smooth sea & Clear weather
4.45—Cpe Orlando Abm SxE dist 2½ miles a/c ExN
5.30—Cpe Calasa Abm SxE dist 2½ miles
6.10—Vulcan Isld Lt abm NxW dist 6 miles
7.5—Cpe Millaso Abm SxE distance 1 mile
8—Light airs Smooth sea & fine Clear weather
10—Received Messina Pilot & proceeded into port
10.40—Came to anchor stbd anchor & all chain 6½ shackle out
Noon—Light airs & fine weather
at Messina 2960
11—All moored Stern on to Quay & Anchor out for'ard
11.30—Commenced loading more lemons No 1 2 4 5 Hatches
8 shore winchmen driving winches
Officers & Clerks Tallying Cargo
P.M.
1.35—Commenced taking in Lemon peel at No 3 Hatch, using Rope Runners
5—Ceased work at for'ard Hatches
7—Ceased all work for the day
Day ends with Fresh Breeze Rain, Thunder & lightning
Quartermaster on duty day & night 2961

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2962 **LOG OF THE S. S. "WILLDOMINO" from & at Messina to**

Date Friday June 11th 1920

Hour P.M.	Log	Course Stand.	Wind Direct	Force	Barometer
5			NW		
6	0		"		
7		N84°W	"		
8	20	"	"	4	29.69
9		"	"		
2963 10		"	"		
11		N80°W	"		
12	55	"	"	4	29.70

Tanks & Bilges sounded A.M. & P.M.

Ventilation of Holds & Cargo Strictly Attended to

2964

Claimant's Exhibit E-1.

A.M.—Heavy Rain & thunder 2965
7.30—Resumed loading barrels at No I other Hatches held up waiting for cargo
9—Resumed loading at No 5
10.30—Stopped again at No 5
Officers & Clerks Tallying Cargo
Numerous delays waiting for cargo
Heavy Rain Squalls all the morning
P.M.
2—Received Pilot on board
3.40—Finished loading and covered up hatches
4.20—Commenced Unmooring & Heaving up Anchor
5—Anchor up & proceeded to sea on voyage 2966
5.45—Discharged Pilot Engines Full Speed
5.50—Rounded Faro LH. Cleared Messina Straits Streamed Logo
6.45—Set Course N84°W
Moderate Wind & sea & Clear weather
8.15—Cpe Milasso Abm dist 4 mils
10.30—Cpe Orlando Abm dist 6 mils Log 41 a/c N80°W
Moderate wind & sea & Cloudy weather & lightning

2967

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2968 **LOG OF THE S. S. "WILLDOMINO" from Messina to Gibralta**

Date Saturday June 12th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		N80°W	NW		
	2		"	"		
	3		"	"		
	4	90	"	NNW4	4	29.70
	5		"	"		
	6		N85°W	"		
2969	7		"	"		
	8	125	"	" 3	3	29.73
	9		"	"		
	10		"	"		
	11		"	SW		
	12	162	"	"	2	29.73

Latitude 38°19'N Longitude 12°3'E Course Various Distance 183 miles Speed 9.89K Running Time 18H-29m

	P.M.					
	1		S87°W	SW		
	2		"	"		
2970	3		"	South		
	4	36	"	"	3	29.66
	5		"	"		
	6		"	"		
	7		West	"		
	8	74	"	"	3	29.64
	9		"	"		
	10		"	"		
	11		"	"		
	12	109	"	"	3	29.63

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-1.

A.M. 2971
1.50—Cefula Lt Abeam distant 17 miles Log 72
4—Moderate wind & sea & Clear & Cloudy weather
5.45—Cpe Gallo L. H. abeam 59°W dist 7 miles Log 3 a/c N85°W
8—Gentle breeze Moderate sea, & fine clear weather
8.40—Cpe St Vito Abeam distant 7 miles Log 30
Noon—Light Airs, Smooth sea & fine clear weather
Noon a/c S87°W
P.M.
4—Gentle Breeze Smooth sea & fine clear weather
7.26—a/c West
8—Similar wind, Weather & Conditions 2972
Midnight—Gentle breeze Moderate sea & Clear weather

2973

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2974 **LOG OF THE S. S. "WILLDOMINO" from Messina to Gibralta**

Date Sunday June 13th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		West	SW		
	2		"	"		
	3		"	"		
	4	143	N87°W	"	4	29.64
	5		"	"		
2975	6		"	"		
	7		"	"		
	8	178	"	"	4	29.64
	9		"	"		
	10		"	NW		
	11		"	"		
	12	211	"	"	4	29.67

Latitude 37°40′N Longitude 7°21′E Course S80°W Distance 226 miles Speed 9.29K Running Time 24H-19m

	P.M.					
	1		N87°W	NW		
	2		"	"		
2976	3		"	"		
	4	35	"	"	3	29.67
	5		"	SW		
	6		"	"		
	7		"	"		
	8	72	"	"	4	29.70
	9		"	"		
	10		"	"		
	11		"	"		
	12	105	"	"	3	29.73

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-1.

A.M. 2977
3.40—a/c N87°W
4—Moderate Wind & sea & Clear weather
8—Similar Weather & Conditions prevail
Noon—Moderate wind & sea, clear weather, sky cloudy
P.M.
4—Gentle Breeze Smooth sea & Clear weather
8—Moderate wind & sea & Rain squalls, Cloudy & Overcast
Midnight—Gentle Breeze Moderate sea & Clear weather

2978

2979

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-1.

2980 **LOG OF THE S. S. "WILLDOMINO" from Messina to Gibralta**

Date Monday June 14th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		N87°W	West		
	2		"	"		
	3		"	WNW		
	4	138	"	"	4	29.68
	5		"	"		
2981	6		"	"		
	7		"	"		
	8	171	"	"	4	29.74
	9		"	"		
	10		Stopped for Repairs	"		
	11		N87W	"		
	12	183	"	"	2	29.79

Latitude 37°6′N Longitude 3°3′E Course S80W Distance 210 miles Speed 8.96K Running Time 23H-24m

2982	P.M.					
	1		N87°	WNW		
	2		"	"		
	3		"	"		
	4	33	"	"	2	29.75
	5		"	"		
	6		"	WSW		
	7		"	"		
	8	68	"	"	4	29.75
	9		"	"		
	10		"	"		
	11		"	"		
	12	100	"	"	4	29.73

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargoes strictly attended to

Claimant's Exhibit E-1.

2983

A.M.
4—Moderate wind & sea & fine Clear weather
8—Similar Weather & Conditions
9.40—Stopped for Engine purposes
10.30—Full ahead again
Noon—Light Airs Smooth sea & fine clear weather
P.M.
4—Light Airs Smooth sea & fine Clear weather
8—Moderate wind & sea & fine Clear weather
10.45—Cape Tenez Abeam distant 10 miles Log 90
Midnight—Similar weather & Conditions prevail

2984

2985

J. THIRKELL, Chief Officer J. BEEBY, Master

2986

2987

Cover of Claimant's Exhibit E-2.

VOYAGE 4 HOMEWARD.

WILLIAMS STEAMSHIP CO. INC.

CHIEF OFFICER'S LOG BOOK—

STEAMSHIP "WILLDOMINO"

2988

Claimant's Exhibit E-2

2989

WILLIAMS S. S. CO., INC.

CHIEF OFFICER'S LOG BOOK OF THE

Steamship "Willdomino" of Halifax N. S.

Tons Registered 4173 Registered No. 141302

ON A VOYAGE

From Messina
To New York (Via Gibralta & Lisbon) & Ponta Delgada & Sidney C B & Halifax N S
Commanded by J. Beeby
Commencing June 15th 1920
Ending August 2nd 1920
Kept by J. Thirkell, Chief Officer.

2990

Draught		ft. "	ft. "
of water	leaving.....forward	....	aft ....
"	arriving at Gibralta forward	13- 3	aft 15- 6
"	leaving Gibralta forward	15- 0	aft 16- 6
"	arriving at Lisbon forward	14- 6	aft 16- 2
"	leaving Lisbon forward	16- 0	aft 16- 8
"	arriving at Ponta Delgada forward	15- 0	aft 16- 2
"	leaving Ponta Delgada forward	15- 0	aft 17-00
"	arriving at Sydney C. B. forward	14- 8	aft 16-00
"	leaving Sydney C. B. forward	14- 7	aft 16- 3
"	arriving Halifax N. S. forward	19- 6	aft 13- 6
"	leaving Halifax N. S. forward	12-10	aft 22- 6

2991

Claimant's Exhibit E-2.

2992 **LOG OF THE S. S. "WILLDOMINO" from Messina to Gibralta**

Date Tuesday June 15th, 1920

Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
1		N87°W	WSW		
2		"	"		
3		"	"		
4	129	"	"	4	29.70
5		"	"		
6		"	"		
2993 7		"	"		
8	161	"	"	4	29.76
9		"	West		
10		"	"		
11		"	"		
12	194	"	"	4	29.78

Latitude 36°33'N Longitude 1°4'W Course S80°W Distance 200 miles Speed 8.24K Running Time 24H-16m

P.M.					
1		N83°W	West		
2		"	"		
2994 3		"	"		
4	32	"	"	3	29.75
5		"	WSW		
6		"	"		
7		"	"		
8	67	"	"	3	29.72
9		"	"		
10		"	"		
11		"	"		
12	100	"	"	3	29.71

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

A.M. 2995
4—Moderate wind & sea & Clear weather
8—Similar Weather Continues
Noon—Moderate wind & sea & clear weather
Noon—a/c N83°W
P.M.
4—Gentle breeze Smooth sea & fine clear weather
8—Similar weather & Conditions prevail
11—Cpe Sacratif Bonre N36W True distant 25 miles
Log 96
Midnight—Gentle Breeze Smooth sea & fine clear weather

2996

2997

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

2998 **LOG OF THE S. S. "WILLDOMINO" from Messina to Gibralta**

Date Wednesday June 16th 1920

Hour	Log	Course	Wind		Barometer
A.M.		Stand.	Direct	Force	
1		N83°W	WSW		
2		"	"		
3		"	West		
4	134	"	"	3	29.66
5		Various	"		
6		"	"		
7		"	"		
8	167	"	"	4	29.72
9		"	"		
10		"	"		
11		"	"		
12	197	"	"	4	29.70

2999

Latitude 36°11'N Longitude 5°3'W Course Various Distance 195 miles Speed 8.03K Running Time 24H-16m

P.M.				
1		Various	West	
2		"	"	
3		"	"	
4		at	"	3	29.70
5		Gibralta		
6		Bunkering		
7		"		
8		"		
9		"		
10		"		
11		"		

3000

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

A.M. 3001

0.50—Cape Sacratif Lt Abm distant 23 miles Log 108

4—Gentle Breeze Moderate sea & fine clear weather

8—Similar Weather & Conditions prevail

Noon—Moderate wind & sea & clear weather Courses Various

P.M.

1.45—Rounded Europa pt at ½ mile

2.15—Received pilot & proceeded

2.30—Came to anchor off Breakwater at Gib

2.45—Received Tug & Pilot & proceeded to heave up anchor

3.15—Anchor up & proceeded into Gib 3002

3—All moored alongside Pier II & commenced taking in Bunkers

6—Stopped Bunkering for the night

Day ends with light wind & fine weather

Quartermasters on duty day & night

Ship & moorings carefully attended to

3003

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3004 **LOG OF THE S. S. "WILLDOMINO" from Messina at Gibralta**

Date Thursday June 17th 1920

	Hour	Log	Course	Wind		Barometer
	A.M.		Stand.	Direct	Force	
	1		at Gibralta	West		
	3		"	"		
	3		"	"		
	4		"	"		29.72
	5		"	"	5	
	6		Bunkering	"		
	7			"		
3005	8			"	5	29.75
	9			"		
	10			"		
	11			"		
	12			"	5	29.76

Latitude At Gibralta Longitude Course Various Distance 18.0 miles Speed 8.78K Running Time 2H-3m

	P.M.					
	1		Various	WNW		
	2		"	"		
	3		"	"		
3006	4	27	N54W	"	5	29.77
	5		N60°W	NNW		
	6		"	"		
	7		"	"		
	8	66	"	"	5	29.77
	9		"	"		
	10		"	"		
	11		"	"		
	12	99	"	"	5	29.78

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

A.M.—at Gib. Clear & fine weather 3007
6—Resumed Bunkering
10—Finished Bunkering
Noon—Received Pilot & Tug & unmoored & left the Quay & discharged Tug
P.M.
12.15—Cleared Gibralta Harbour, discharged Pilot & proceeded Full speed
12.40—Europa pt Abm 2 miles streamed log courses Var this Straits
3.25—Tarifa Lt Abm distant 8 miles a/c N54°W Log 22
4—Fresh Breeze Moderate sea & fine clear weather
4.30—a/c N60W 3068
7.25—Cape Trafalgar Abeam N30E distant 7½ miles Log 61
Fresh Breeze Moderate sea & clear weather
Midnight—Similar Weather & Conditions prevail

3009

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3010 **LOG OF THE S. S. "WILLDOMINO" from Gibralta to Lisbon**

Date Friday June 18th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		N60°W	North		
	2		"	"		
	3		"	"		
	4	133	"	"	5	29.77
	5		"	"		
3011	6		"	"		
	7		N50°W	"		
	8	168	"	"	5	29.82
	9		N40°W	"		
	10		"	"		
	11		"	"		
	12	200	"	"	5	29.82

Latitude 36°50'N Longitude 8°36'W Course Various Distance 178 Miles Speed 7.56K Running Time 23H-33m

	P.M.					
	1		N49W	North		
3012	2		"	"		
	3		North	"		
	4	31	"	"	5	29.81
	5		N6°E	"		
	6		"	"		
	7		"	"		
	8	62	"	"	5	29.82
	9		"	"		
	10		"	"		
	11		N11E	"		
	12	92	"	"	5	29.82

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

A.M. 3013
4—Fresh Breeze Moderate sea & Clear Weather
7—a/c N50W Log 62
8—Similar Wind & Weather, a/c N49W
Noon—Fresh Breeze Moderate sea & fine clear weather a/c N49W
P.M.
2.56—Cape St Vincent Abeam distant 3½ miles Log 24 a/c North
4—Fresh Breeze Moderate head sea & clear weather
4.15—a/c N6E
8—Similar Weather & Conditions prevail
10.45—a/c N11E Log 82 3014
Midnight—Fresh Breeze Moderate sea & Clear & Cloudy weather

3015

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3016 **LOG OF THE S. S. "WILLDOMINO" from Gibralta at Lisbon**

Date Saturday June 19th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		N11°E	North		
	2		"	"		
	3	26	N2E	"		
	4		"	"	3	29.80
	5		Various	"		
3017	6		"	"		
	7		Anchored off	"		
	8		Lisbon in River	"		29.80
	9		"			
	10		"			
	11		"			
	12		"			

Latitude, Longitude At Lisbon Distance 127 miles Speed 7.14K Running Time 17H-47m

	P.M.		
	1		
	2		
3018	3	Loading Cork	
	4	at Lisbon	
	5	"	
	6	"	
	7	"	
	8	"	
	9	"	
	10	"	
	11	"	
	12		

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

A.M. 3019

2.45—Cape Espichel Abeam dist 6 miles Log 14

3.10—Engines half speed

3.45—Full ahead

4—Entered Tagus river for Lisbon

5.45—Received Lisbon Pilot off Belem Castle & proceeded

7—Came to anchor in river 2 Anchors out 4 Shackles on each 16 fthms Water

8.30—Cargo men on board preparing to load Cargo

10.50—First Lighter with Cork alongside at No I

11—Commenced loading Cork at No I Using Winches, 2 Shore Winchmen

11.15—Commenced loading Cork at No II Using Winches, 3020
2 Shore Winchmen

Noon to 1 P.M.—Ceased work for dinner

1—Resumed loading Cork at No I II & IV Hatches 6 shore winchmen

Officers Tallying Cargo till 2.30 P.M.

2—Ceased loading at No IV Waiting for Cargo 1 Shore Tally Clerk For'ard

3—Ceased loading at No II Waiting for Cargo

6—Commenced loading shelter DK Bunker with Cork

Midnight—Ceased All work for the day

3rd officer & Quartermaster on night duty, while working cargo

Strong Wly wind & fine weather 3021

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3022 **LOG OF THE S. S. "WILLDOMINO" at Lisbon**

Sunday June 20th 1920

A.M.—Light NW wind & fine weather
6.30—Resumed loading at No I
7.30—Stopped loading at No I
10.30—Resumed loading at No I
11 to Noon—Stopped Noon Resumed loading again
P.M.
2.30—Stopped waiting for cargo
4.30—Resumed loading at No I & II 4 Shore Winchmen
3023 & 1 Tally Clerk
7.15—Ceased loading for the day
Day ends with strong Ely wind & fine weather
Quartermasters on duty day & night

Monday June 21st 1920

A.M.—Light SE wind & fine clear weather
6—Resumed loading at No I II & IV 9 A.M. at No III
8 Shore Winchmen & 3 Shore Tally Clerks
11 to Noon—Stop for dinner Noon resumed again
P.M.
7.15—Ceased loading for the day
3021 Filled up Fresh Water Tanks & Boilers
Day ends with light Airs & fine weather
Quartermasters on duty day & night
Ship & Cargo carefully watched
Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo carefully attended to

Claimant's Exhibit E-2.

Tuesday June 22nd 1920 3025

A.M.—Calms & Fine Clear Weather s/s At Anchor in river
6—Resumed loading at all hatches 9 Shore winchmen 4 Shore Tally Clerks
10.45—Finished loading at No II Hatch 11 A. M. Ceased for dinner
P.M.
1—Resumed loading 2.15 P.M. Ceased loading for the day
Numerous delays & lost time waiting for Cargo
Unshackled & Cleared Hawse this day
Day ends with Light Ely wind & fine weather 3026
Quartermasters on duty day and night

Wednesday June 23rd 1920

A.M.—Light Wly wind & fine Clear weather
5—Resumed loading at No I IV & V (Shore Winchmen & Tally men)
8—No I Holds loaded & finished
11 to Noon—Ceased loading for dinner
P.M.
3.20—All Stevedores men left the ship No work since 8 A.M.
Numerous delays & lost time waiting for cargo 3027
5—Received notice—no more Cargo. Ship finished loading
Day ends with light breeze & fine Clear weather
Paid off 2nd, 3rd & 5th Engineers this day (sick men Doctors Orders)
Quartermasters on duty day & night

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3028 **LOG OF THE S. S. "WILLDOMINO" from Lisbon to New York**

Date Thursday June 24th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1			Nly	2	
	2		At Anchor off	"		
	3		Lisbon in River	"		
	4		"	"		
	5		"	"		
3029	6		"	"		
	7		"	"		
	8		"	"		
	9		"	"		
	10		"	"		
	11		"	"		
	12		"	"	2	
	Latitude	Longitude	Lisbon			
	P.M.					
	1		"	North		
	2		"	"		
	4		"	"	3	29.76
	5			"		
3030	6			"		
	7	0	N59W	"		
	8	10	"	"	4	29.77
	9		"	"		
	10		"	"		
	11		"	"		
	12	37	"	"	4	29.77

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

A.M.—Light Nly wind & fine weather 3031
s/s At Anchor in river waiting for New Engineers
Noon—Light Airs & fine weather s/s still at Anchor in river
P.M.
4.15—Received pilot & 2 new Portuguese Engineers
4.40—Hove up Anchor & proceeded to Sea, Pilot directing
5.45—Cleared the harbour entrance
6.30—Discharged Pilot & proceeded Full speed on Voyage
6.40—Cape Razo Abm North dist 1 mile Set Log 0 & Course N59°W
Moderate wind & sea & hazey misty weather
Midnight—Moderate wind & sea & hazey misty weather 3032
Drinking water last filled: Lisbon

3033

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3034 **LOG OF THE S. S. "WILLDOMINO" from Lisbon to New York**

Date Friday June 25th 1920

	Hour	Log	Course	Wind		Barometer
	A.M.		Stand.	Direct	Force	
	1		N.79°W	North		
	2		"	"		
	3		"	"		
	4	65	"	"	5	29.73
	5			"		
	6			"		
3035	7		N61°W	"		
	8	92	"	"	4	29.78
	9		Stopped	"		
	10		"	"		
	11		"	"		
	12	100	"	"	4	29.79

Latitude 38°56'N Longitude 11°20'W Course N81°W Speed 5.75K Running Time 15H-8m Distance 87 miles

	P.M.					
	1		N61°W	North		
	2		"	"		
3036	3		"	"		
	4	28	"	"	4	29.79
	5		"	"		
	6		"	"		
	7		"	"		
	8	62	"	"	4	29.80
	9		"	"		
	10		"	"		
	11		"	"		
	12	93	"	NE	4	29.81

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

A.M. 3037

4—Fresh Breeze, Moderate sea, Dull & Overcast & Clear Weather

6.45—a/c N61°W

8—Moderate wind & sea & dull Overcast & Clear Weather

9.10—Engines Stopped for Engine purposes

11.10—Engines full ahead

11.30—Engines Stopped to Engineer requirements

Noon—Mod wind & sea & Clear weather. Engines stopped

P.M.

12.35—Repairs affected Engines Full ahead again

4—Moderate wind & sea & Clear & Overcast Weather 3038

8—Similar Wind, Weather & Conditions prevail

Midnight—Moderate wind & Beam sea & Cloudy & Clear Wr. s/s Gently rolling.

3039

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3040 **LOG OF THE S. S. "WILLDOMINO" from Lisbon to New York**

Date Saturday June 26th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		N61°W	NE		
	2		"	"		
	3		"	"		
	4	129	"	"	4	29.80
	5		"	"		
	6		"	"		
3041	7		"	"		
	8	157	"	"	4	29.82
	9		"	"		
	10		"	"		
	11		"	"		
	12	186	"	"	4	29.87

Latitude 39°22'N Longitude 15°36'W Course N82W Distance 201 miles Speed 8.48K Running Time 23H-42m

	P.M.					
	1		N58W	NE		
	2		"	"		
3042	3		"	"		
	4	31	"	"	4	29.90
	5		N52W	"		
	6		"	"		
	7		"	"		
	8	67	"	"	4	29.92
	9		"	"		
	10		"	"		
	11		Stopped	"		
	12	82	"	"	4	29.94

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

A.M. 3043

4—Mod Wind & Beam sea & dull & Overcast Wr.

8—Moderate wind & sea & Clear & Cloudy weather

9—Crew Exercised at Boat Drill

Noon—Similar Wind & Weather Continues
a/c N58W

P.M.

4—Moderate wind & sea & Clear & Cloudy weather

8—Similar Weather & Conditions continue

10.20—Engines Stopped without warning

Mod wind & sea & Clear Wr. s/s stopped for Engine Repairs

3044

3045

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3046 **LOG OF THE S. S. "WILLDOMINO" from Lisbon to New York**

Date Sunday June 27th 1920

	Hour	Log	Course	Wind		Barometer
	A.M.		Stand.	Direct	Force	
	1		s/s Stopped	NE		
	2		"	"		
	3		"	"		
	4		"	"	4	29.92
	5		"	"		
	6	82	N52W	"		
3047	7		"	"		
	8	97	"	"	4	29.96
	9		"	"		
	10		"	"		
	11		"	"		
	12	129	"	"	4	29.98

Latitude 39°41′N Longitude 18°20′W Course N81W Distance 128 miles 7.75K Running Time 16H-51m

	P.M.					
	1		N52W	North		
	2		"	"		
	3		"	"		
3048	4	30	"	"	3	29.96
	5		"	"		
	6		"	"		
	7		"	"		
	8	67	"	"	3	29.98
	9		"	"		
	10		"	"		
	11		"	"		
	12	97	"	"	3	29.98

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to
s/s Stopped. B. T. Regulations Attended to

Claimant's Exhibit E-2.

A.M. 3049

4—Moderate wind & sea & Clear Weather, vessel stopped for engine purposes, Engineers repairing same

6—Repairs Affected, Engines Full speed

8—Moderate wind & sea & Clear Weather

Noon—Similar Weather & Conditions

P.M.

4—Gentle breeze Smooth sea & Clear weather

8—Similar Weather Continues

Midnight—Conditions remain Unchanged

3050

3051

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3052 **LOG OF THE S. S. "WILLDOMINO" from Lisbon to New York**

Date Monday June 28th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		N52W	W		
	2		"	"		
	3		"	"		
	4	120	"	"	3	29.94
	5		"	"		
	6		"	"		
3053	7		"	"		
	8	161	"	"	3	29.95
	9		"	"		
	10		"	"		
	11		"	"		
	12	192	"	"	3	29.94

Latitude 40°37′N Longitude 22°16′W Course N73W Distance 189 miles Speed 7.79K Running Time 24H-16m

	P.M.					
	1		N52W	West		
	2		"	"		
3054	3		"	"		
	4	30	"	"	3	29.93
	5		"	NNE		
	6		"	"		
	7		"	"		
	8	62	"	"	3	29.94
	9		"	"		
	10		"	"		
	11		"	"		
	12	92	"	"	3	29.95

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo attended to

Claimant's Exhibit E-2.

A.M. 3055

4—Gentle breeze, Smooth sea & fine clear weather
8—Similar weather & Condition
8.25—Engines stopped
8.30—Engines Full ahead
Noon—Gentle Breeze, Moderate sea & Clear Weather
P.M.
4—Gentle Breeze, Moderate sea & Clear weather
8—Similar fine weather & Conditions
Midnight—Gentle breeze, mod sea & Clear weather

3056

3057

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3058 **LOG OF THE S. S. "WILLDOMINO" from Lisbon to New York**

Date Tuesday June 29th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		N52°W	NNE		
	2		"	"		
	3		"	"		
	4	122	"	"	3	29.91
	5		"	WNW		
	6		"	"		
3059	7		"	"		
	8	151	"	"	3	29.94
	9		"	"		
	10		"	"		
	11		"	"		
	12	180	"	"	3	29.94

Latitude 41°26'N Longitude 25°56'W Course N73°W Distance 174 miles Speed 7.17K Running Time 24H-15m

	P.M.				
	1		N52W	WNW	
	2		Vessel Stopped	"	
3060			for		
	3		Engine Troubles	"	
	4		"	"	
	5		"	"	3
	6		"	"	
	7		"	"	
	8		"	"	3
	9		"	"	
	10		"	"	
	11		"	"	
	12		"	"	3

(B. T. R. lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

A.M. 3061
4—Gentle breeze, moderate sea, & clear weather
8—Similar Weather & Conditions
Noon—Conditions & Weather Remain unchanged
P.M.
1.5—Engines stopped
1.14—Engines Full ahead
1.20—Engines stopped, for engine troubles, Engineers busy effecting repairs to same
4—Gentle breeze moderate sea & Clear weather s/s stopped & drifting
Engineers working on Engine Troubles B. T. Regulations attended to 3062
8—Similar Weather s/s still stopped, Engineers repairing Engines B. T. Regulations Attended to
Midnight—s/s Stopped & drifting. Repairs proceeding, Similar Weather

3063

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3064 **LOG OF THE S. S. "WILLDOMINO" from Lisbon to New York**

Date Wednesday June 30th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		Vessel	WNW		
			Stopped			
	2		for	"		
			Engine			
	3		Troubles	"		
	4		"	"	3	29.87
3065	5		"	"		
	6		"	"		
	7		"	"		
	8		"	"	3	29.91
	9		"	"		
	10		"	"		
	11		"	"		
	12		"	"	3	29.96

Latitude 41°8′N Longitude 25°46′ Course N73W Running Time nil Current: Set—S32°E Drift—24 miles

	P.M.				
3066	1	s/s Stopped	"		
	2	& Drifting	"		
	3	Repairs	"		
		Proceeding			
	4	"	"	3	29.95
	5	"	"		
	6	"	"		
	7	"	NW		
	8	"	"	3	29.95
	9	"	"		
	10	"	"		
	11	"	"		
	12	"	"	3	29.92

(B. T. R. lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.

Ventilation of Holds & Cargo attended to

Claimant's Exhibit E-2.

A.M.—B-T. Regulations Attended to 3067
4—Gentle Breeze Moderate sea & Clear weather
s/s Stopped & drifting, Repairs to Engines proceeding
8—Similar Weather, Vessel stopped, Repairs proceeding
Noon—Vessel still stopped. Repairs proceeding, moderate sea & Clear Wr.

P.M.
4—s/s still stopped & drifting, Repairs proceeding Continuously Gentle Breeze moderate sea & Clear Wr. B-T. Regulations attended
8—Steamer Stopped & drifting, Repairs proceeding Similar Weather
Midnight—Gentle Breeze mod sea & clear weather 3068
Steamer Stopped, Repairs proceeding. B.T. Regulations attended

3069

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3070 **LOG OF THE S. S. "WILLDOMINO" from Lisbon to New York**

Date Thursday July 1st 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		Vessel Stopped	N		
	2		& Drifting	"		
	3		Repairs	"		
	4		Proceeding Engines	"	3	29.92
	5		"	"		
3071	6		"	"		
	7		"	"		
	8		"	"	4	29.93
	9		"	"		
	10		"	"		
	11		"	"		
	12		"	"		

Latitude 40°39'N Longitude 25°12'W Current: Set—841°E Drift—39 miles

	P.M.					
	1		Steamer Stopped	North		
	2		(Engine Repairs)	"		
3072	3		(Proceeding)	2		
	4		"	"	4	29.96
	5		"	"		
	6		"	"		
	7		"	"		
	8		"	"	4	29.99
	9		"	"		
	10		"	"		
	11		"	"		
	12		"	"	4	30.00

(B T R lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo Attended to

Claimant's Exhibit E-2.

A.M.—s/s Stopped 3073
4—Steamer Stopped & drifting, Repairs proceeding, Engineers working continuously at engines
Gentle Breeze, moderate sea & Clear weather—B. T. Regulations attended
8—Similar Wr. Steamer Still Stopped, Repairs proceeding
Noon—Vessel Still Stopped, Repairs proceeding, mod wind & sea & Clear Wr.
P.M.
4—s/s Still Stopped, Engineers busy effecting Engine Repairs
Moderate wind & sea & Clear Wr. B. T. Regulations attended to 3074
8—Steamer Stopped & drifting, Repairs proceeding by Engineers & Officers Assisting, Similar weather continues
Midnight—Moderate wind & sea & Clear Wr.
Steamer Stopped, Repairs proceeding, by Engineers, Officers Assisting

3075

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3076 **LOG OF THE S. S. "WILLDOMINO" from Lisbon to San Miguel Ponta Delgada**

Date Friday July 2nd 1920

	Hour	Log	Course	Wind		Barometer
	A.M.		Stand.	Direct	Force	
	1		Vessel Stopped	North		
	2		Repairs proceeding	"		
	3		"	"		
	4		"	"	4	29.98
	5		"	"		
3077	6		"	"		
	7		"	"		
	8		"	"	4	30.00
	9		"	"		
	10		"	"		
	11		"	"		
	12	0	S23W	"	4	30.03

Latitude 40°25'N Longitude 24°43'W Current: Set—858E Drift—26 miles

	P.M.					
	1		S26W	NNE		
	2		"	"		
3078	3		"	"		
	4	31	"	"	4	30.04
	5		"	"		
	6		"	"		
	7		"	"		
	8	59	"	"	4	30.03
	9		"	"		
	10		"	"		
	11		S23W	"		
	12	93	"	"	4	30.10

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo Attended to

Claimant's Exhibit E-2.

A.M.—s/s Stopped B. T. Regulations attended to 3079
4—Moderate wind & sea & Clear weather s/s rolling heavily
Steamer Stopped, Engineers Repairing Engines Officers Assisting
8—Similar weather & Condition s/s rolling heavily
Steamer Stopped, Repairs proceeding continuously
11.30—Engines Temporarily Repaired
11.45—Engines Full speed ahead Set Course S32W Set Log
Moderate wind & sea & clear weather
P.M.
12.50—a/c S26W 3080
4—Moderate following wind & sea & Clear weather
8—Similar Wind & Weather Continues
10—a/c S23°W
Midnight—Conditions Remain Unchanged

3081

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3082 **LOG OF THE S. S. "WILLDOMINO" from Lisbon to San Miguel Ponta Delgada**

Date Saturday July 3rd 1920

	Hour	Log	Course	Wind		Barometer
	A.M.		Stand.	Direct	Force	
	1		S23°W	NNE		
	2		"	"		
	3		"	"		
	4	117	"	NE	3	30.08
	5		"	"		
	6		"	"		
3083	7		Various	"		
	8		"	"	3	30.12
	9		"	"		
	10		"	"		
	11		"	"		
	12		Pilots Orders	"	3	30.15
	P.M.					
	1					
	2					
	3					
	4		Ponta Delgada			
	5					
3084	6		St Miguel			
	7					
	8					
	9					
	10					
	11					
	12					

(Anchor lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly Attended to

Claimant's Exhibit E-2.

A.M. 3085

4—Gentle breeze moderate sea & Clear weather

8—Similar weather & Conditions Continue

Noon—Stopped & received Ponta Delgada Pilot & proceeded into Harbour

Moderate wind Smooth sea & Clear weather

P.M.

12.50—Let go Stbd Anchor & slacked astern, finished with Engines

2—All moored fore & Aft to Buoys & mooring Chain Fore & Aft

Day ends with mod Northerly wind & fine weather

Quartermasters on duty day & night 3086

3087

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3088 **LOG OF THE S. S. "WILLDOMINO" from Lisbon at Ponta Delgada**

Sunday 4th July 1920

A.M.—Moderate Northerly wind & fine Weather
s/s waiting for Repairs, Oil, Coal & Water
Filled up Fresh Water Tanks this day
Day ends with mod wind & fine weather
Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to
Quartermasters on duty day & night

3089

Monday 5th July 1920

A.M.—Light Nly wind & Small Rain
Lloyds surveyors surveyed Engine damage this day
Engineers receiving Fresh Water for Boilers
10.30—Commenced Bunkering from Lighters using 2 Winches & Continued Bunkering all Day
Crew painting Bo' Topping & figures etc.
P.M.
9.30—Finished Bunkering
Day ends with moderate wind & fine weather
3099 Quartermasters on duty day & night
(Anchor lights burning sunset to sunrise)
Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Bunkers attended to

Claimant's Exhibit E-2.

Tuesday 6th July 1920 3091

A.M.—Light Breeze & fine weather
s/s At Anchor undergoing Engine Repairs on shore
Crew busy painting Bo' Topping Etc.
Day ends with Light Nly wind & fine weather
Tanks & Bilges sounded A.M. & P.M.
Ventilations of Holds & Bunkers strictly attended to
Quartermasters on duty day & night

Wednesday 7th July 1920

3092

A.M.—Light Breeze & misty Rain
s/s At Anchor undergoing machinery repairs Etc.
Crew employed painting ship White inside
P.M.
1—Crew exercised at Boat Drill
Day ends with Light Airs & fine weather
Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to
Quartermasters on duty day & night
Ship & moorings carefully attended to

3093

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3094 **LOG OF THE S. S. "WILLDOMINO" from Lisbon at Ponta Delgada**

Thursday 8th July 1920

A.M.—Moderate NE wind & Rain
s s At Anchor undergoing Engine Repairs
Received 12 Barrels of Oil for Engineers
Crew painting ship White Etc.
Filled up fresh water Tanks this day
Day ends with moderate wind & fine Weather
Tanks & Bilges sounded A.M. & P.M.
3095 Ventilation of Holds & Cargo strictly attended to
Quartermasters on duty day & night

Friday 9th July 1920

A.M.—Moderate N. Wind & Rain
s/s awaiting engine repairs on shore
P.M.
3—All repairs back again to ship Engineers fixing same
3.45—Received pilot & boatmen & singled up moorings
4.15—Engineer Reported burst pipe in Engine Room & unable to proceed to sea
3096 4.30—Replaced moorings s/s at Anchor waiting for new copper steam pipe being made on shore
Day ends with light wind & fine Weather
Quartermasters on duty day & night
Tanks & Bilges sounded A.M. & P.M.
Ventilations of Holds & Cargo strictly attended to
Drinking water last filled: Ponta Delgada

Claimant's Exhibit E-2.

3097

3098

3099

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3100 **LOG OF THE S. S. "WILLDOMINO" from Ponta Delgada to Sydney C-B.**

Date July 10th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1			West		
	2			"		
	3			"	3	
	4			"		29.98
	5			"		
	6			"		
3101	7			"		
	8			"	3	29.98
	9			"		
	10			"		
	11			"		
	12			"	3	29.98
	Latitude-Longitude		Ponta Delgada			
	P.M.					
	1			W		
	2			"		
	3			"		
	4			"	3	29.98
3102	5			"		
	6			"		
	7		Var	"		
	8			"	3	29.97
	9			"		
	10		N52W	"		
	11		"	"		
	12	20	"	"		29.94

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

A.M.—Moderate wind & fine Clear Weather 3103
Vessel still waiting for new steam pipe
Noon—Vessel still waiting for new Steam pipe
P.M.
6—Received repairs from shore, Engineers fixing same
6.30—Received pilot & singled up moorings
7.40—Hove up Anchor. Let off moorings & proceeded to sea
8—Discharged Pilot & proceeded Full speed. Fine Weather
9.30—Ferrarira Pt Lt Abeam dist 4 miles Streamed Log (0) a/c N52W
Midnight—Gentle Breeze Smooth sea & Clear weather 3104

3105

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3106 **LOG OF THE S. S. "WILLDOMINO" from Ponta Delgada to Sydney C-B.**

Date Sunday July 11th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		N52W	West		
	2		"	"		
	3		Vessel Stopped	"		
	4	35	for Engine	"	3	29.92
	5		Repairs	"		
3107	6		"	"		
	7		"	"		
	8		"	"	2	29.94
	9		"	"		
	10		"	"		
	11		"	"		
	12		"	"	2	29.94

Latitude 37°43'N Longitude 26°27'W Course Various Distance 40 miles Speed 6.6K Running Time 6H-0m

	P.M.					
	1		Vessel Stopped	West		
3108	2		Various	"		
	3		"	"		
	4	48	N52W	"	2	29.94
	5		"	WNW		
	6		"	"		
	7		"	"		
	8	77	"	"	3	29.92
	9		"	"		
	10		"	W		
	11		"	"		
	12	108	"	"	2	29.93

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

A.M. 3109
2—Vessel Stopped for Engine Repairs
4—Gentle breeze Smooth sea & fine clear weather
Vessel stopped, Engineers busy repairing Engines
8—Vessel Stopped & Drifting, Engineers Repairing Engines
Light Airs Smooth sea & fine Clear Weather
Noon—s/s still Stopped. Engineers Effecting repairs. Smooth sea & fine Wr.
Stopped 18 hours up to noon.
P.M.
12.50—slow ahead
12.55—Full ahead, Engine Repairs Effected 3110
1.6—Engines put slow ahead, steering gear went wrong, Engineers busy repairing Steering Engine
3.20—Steering Gear Repairs Effected Engines Full speed, Set Course N52W
Light Airs Smooth sea & Clear weather
8—Gentle Breeze Smooth sea & Clear weather
Midnight—Similar Weather & Conditions

3111

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3112 **LOG OF THE S. S. "WILLDOMINO" from Ponta Delgada to Sydney C-B.**

Date Monday July 12th 1920

	Hour	Log	Course	Wind		Barometer
	A.M.		Stand.	Direct	Force	
	1		N52°W	NNW		
	2		"	"		
	3		"	"		
	4	134	"	"	3	29.98
	5		"	"		
3113	6		"	"		
	7		"	"		
	8	160	"	"	3	29.92
	9		"	"		
	10		"	"		
	11		"	"		
	12	189	"	"	3	29.97

Latitude 38°19′N Longitude 29°24′W Course N76°W Distance 144 miles Speed 6.03K Running Time 23H-22m

	P.M.					
	1		N52W	NNW		
3114	2		"	"		
	3		"	"		
	4	27	"	"	2	29.95
	5		"	"		
	6		"	"		
	7		"	"		
	8	58	"	"	2	29.92
	9		"	"		
	10		"	"		
	11		"	SW		
	12	88	"	"	2	29.93

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

3115

A.M.
4—Gentle Breeze, Smooth sea, & Clear & Cloudy Weather
8—Similar Weather & Conditions
Noon—Gentle Breeze, Smooth sea, & Clear Weather
Stopped 50′, slow ahead 2 Hrs. 19′—up to Noon
P.M.
4—Light Airs, Smooth sea & Clear weather
8—Similar Weather & Conditions
Midnight—Light Airs, Smooth sea & Clear Weather

3116

3117

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3118 **LOG OF THE S. S. "WILLDOMINO" from Ponta Delgada to Sydney C-B.**

Date Tuesday July 13th 1920

	Hour	Log	Course	Wind		Barometer
	A.M.		Stand.	Direct	Force	
	1		N52°W	SW		
	2		"	"		
	3		"	"		
	4	117	"	"	3	29.86
	5		"	WNW		
3119	6		"	"		
	7		"	"		
	8	146	"	"	2	29.90
	9		"	"		
	10		"	"		
	11		"	"		
	12	176	"	"	2	29.90

Latitude 38°59'N Longitude 33°8'W Course N77°W Distance 181 miles Speed 7.46K Running Time 24H-15m

	P.M.					
	1		N52°W	North		
3120	2		"	"		
	3		"	"		
	4	28	"	"	3	29.91
	5		"	"		
	6		"	"		
	7		"	"		
	8	59	"	"	3	29.92
	9		"	"		
	10		"	"		
	11		"	"		
	12	90	"	"	3	29.93

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

A.M. 3121
4—Gentle Breeze, Smooth sea, & Clear & Cloudy Weather
8—Similar Weather & Conditions
Noon—Light Airs, Smooth sea & Clear Weather
P.M.
4—Gentle breeze, Smooth sea & Clear Weather
8—Weather & Conditions Remain Unchanged
Midnight—Gentle Breeze, Smooth sea, & Clear Weather

3122

3123

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3124 **LOG OF THE S. S. "WILLDOMINO" from Ponta Delgada to Sydney C-B.**

Date Wednesday July 14th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		N52°W	North		
	2		"	"		
	3		"	"		
	4	120	"	"	3	29.94
	5		"	"		
3125	6		"	"		
	7		"	"		
	8	146	"	"	2	29.97
	9		"	"		
	10		"	"		
	11		"	"		
	12	174	"	"	2	30.00

Latitude 39°38′N Longitude 36°50′W Course N77°W Distance 175 miles Speed 7-21K Running Time 24H-15m

	P.M.					
	1		Vessel Stopped	WNW		
3126	2		N52W	"		
	3		"	"		
	4	12	"	"	3	29.96
	5		"	"		
	6		"	"		
	7		"	"		
	8	36	"	"	3	29.92
	9		"	"		
	10		"	"		
	11		"	"		
	12	61	"	"	3	29.93

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

A.M. 3127
4—Gentle Breeze, Smooth sea, & Clear Weather
8—Light Breeze, Smooth sea & Clear Weather
Noon—Similar Weather & Conditions continue
Vessel Stopped for Engine purposes
P.M.
1-5—Engine repairs effected, Engines Full ahead
4—Gentle breeze, Smooth sea & Clear weather
8—Similar Wind & Weather Continues
Midnight—Conditions Remain Unchanged

3128

3129

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3130 **LOG OF THE S. S. "WILLDOMINO" from Ponta Delgada to Sydney C-B.**

Date Thursday July 15th 1920

	Hour	Log	Course	Wind		Barometer
	A.M.		Stand.	Direct	Force	
	1		N52°W	WNW		
	2		"	"		
	3		"	"		
	4	87	"	"	3	29.91
	5		"	"		
	6		"	"		
3131	7		"	"		
	8	115	"	"	2	29.92
	9		"	"		
	10		"	"		
	11		"	"		
	12	141	"	"	2	29.91

Latitude 40°4′N Longitude 39°38′W Course N78°W Distance 131 miles Speed 5.67K Running Time 23H-6m

	P.M.					
	1		N45°W	WNW		
	2		"	"		
3132	3		"	"		
	4	21	"	"	3	29.92
	5		"	"		
	6		"	"		
	7		"	"		
	8	42	"	"	3	29.95
	9		"	"		
	10		"	"		
	11		"	"		
	12	66	"	"	3	29.98

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

A.M. 3133
4—Gentle Breeze, Smooth sea, & fine Clear weather
8—Light breeze, Smooth sea, & Clear weather
Noon—Similar Wind, Weather & Condition a/c N45W
P.M.
4—Gentle Breeze, Smooth sea & Clear weather
4.53—Vessel stopped
5—Full ahead. Engine Repairs Effected
8—Gentle Breeze, Smooth sea & Clear weather
Midnight—Similar Wind, Weather & Conditions

3134

3135

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3136 **LOG OF THE S. S. "WILLDOMINO" from Ponta Delgada to Sydney C-B.**

Date Friday July 16th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		N45°W	NW		
	2		"	"		
	3		"	"		
	4	94	"	"	2	30.00
	5		"	"		
	6		"	"		
3137	7		"	"		
	8	122	"	"	2	30.03
	9		"	"		
	10		"	"		
	11		"	"		
	12	150	"	"	2	30.07

Latitude 40°38′N Longitude 42°11′W Course N74°W Distance 122 miles Speed 5.07K Running Time 24H-3m

	P.M.					
	1		N30°W	WNW		
	2		"	"		
3138	3		"	"		
	4	49	"	"	3	30.06
	5		"	"		
	6		"	"		
	7		"	"		
	8	58	"	"	3	30.06
	9		"	"		
	10		"	"		
	11		"	"		
	12	88	"	"	2	30.10

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

A.M. 3139
4—Light Airs, Smooth sea & Clear weather
8—Similar Weather & Conditions
Noon—Smooth — Fine — & Clear Weather a/c N30°W
(Stopped 7′ up to noon)
P.M.
4—Gentle Breeze, Smooth sea & Clear weather
8—Similar Weather & Conditions
Midnight—Light Airs, Smooth sea & Clear weather

3140

3141

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3142 **LOG OF THE S. S. "WILLDOMINO" from Ponta Delgada to Sydney C-B.**

Date Saturday July 17th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer	Temperature Air	Water
	1		N30°W	North				
	2		"	"				
	3		"	"				
	4	115	"	"	3	30.11		
	5		"	N.W.				
3143	6		"	"				
	7		"	"				
	8	142	"	"	3	30.13		
	9		"	W				
	10		"	"				
	11		"	"				
	12	170	"	"	3	30.21		

Latitude 42°32'N Longitude 45°17'W Course N51°W Distance 181 miles Speed 7.48K Running Time 24H-12m

	P.M.							
	1		N30W	SW				
3144	2		"	"				
	3		"	"				
	4	28	"	"	3	30.11		
	5		"	"				
	6		"	"				
	7		"	"				
	8	59	"	"	3	30.06		
	9		"	"				
	10		"	"			64°	58°
	11		"	"			61	58
	12	87	"	"	3	30.01	60	58

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

A.M. 3145
4—Gentle Breeze, Smooth sea & Clear weather
8—Similar weather & Conditions
Noon—Conditions Remain Unchanged
P.M.
4—Gentle Breeze, Smooth sea & Clear Weather
8—Similar Weather & Conditions
9.30—Set in Foggy. Fog Regulations attended to
Midnight—Gentle Breeze Smooth sea & Fog. Regulations attended to.

3146

3147

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3148 **LOG OF THE S. S. "WILLDOMINO" from Ponta Delgada to Sydney C-B.**

Date Sunday July 18th 1920

Hour	Log	Course	Wind		Barometer	Temperature	
A.M.		Stand.	Direct	Force		Air	Water
1		N30°W	SW			61°	57
2		"	"			60	57
3		"	"			60	57
4	112	"	"	3	29.96	60	56
5		"	"			59	56
6		"	"			59	56
3149 7		"	"			59	56
8	136	"	W	3	29.98	59	57
9		N45N	"			58	56
10		"	"			57	56
11		"	"				
12	161	"	"	3	30.00	58	56

Latitude 44°15'N Longitude 48°15'W Course N48°W Distance 194 miles Speed 8.01K Running Time 24H-12m

P.M.							
1		N45°W	NW				
2		"	"				
3150 3		"	"			54°	50°
4	24	"	"	2	30.02		
5		"	"			55°	49°
6		"	NNE				
7		"	"				
8	52	"	"		30.03		
9		"	"	2			
10		"	SW				
11		"	"				
12	81	"	"	2	30.00	55	48

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

A.M.—Foggy Weather. Fog Regulation attended 3151
4—Gentle Breeze, Smooth sea & Fog. B. T. Regulations attended to
8—Similar Weather & Fog. Regulations attended to
Noon—Gentle Breeze Moderate sea, & passing Fog banks
P.M.
4—Light airs, moderate sea & passing Fog banks
8—Light Airs, Slight swell, & Clear Wr. Sky Overcast
Midnight—Similar Weather & Conditions

3152

3153

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3154 **LOG OF THE S. S. "WILLDOMINO" from Ponta Delgada to Sydney C-B.**

Date Monday July 19th 1920

	Hour	Log	Course	Wind		Barometer
	A.M.		Stand.	Direct	Force	
	1		N45°W	SW		
	2		"	"		
	3		"	"		
	4	106	"	"	2	30.02
	5		"	"		
	6		"	"		
3155	7		"	"		
	8	134	"	"	3	30.05
	9		"	"		
	10		"	"		
	11		"	"		
	12	162	"	"	3	30.04

Latitude 45°26'N Longitude 52°4'W Course N66°W Distance 177 miles Speed 7.71K Running Time 24H-15m

	P.M.					
	1		N45°W	West		
	2		"	"		
3156	3		"	"		
	4	27	"	"	2	30.05
	5		"	"		
	6		"	"		
	7		"	"		
	8	55	"	"	2	30.03
	9		N50W	"		
	10		"	"		
	11		"	"		
	12	84	"	"	2	30.00

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo attended to

Claimant's Exhibit E-2.

A.M. 3157

4—Gentle Breeze, Smooth sea, & Clear weather

8—Similar wind & weather continues

8.45—Set in Dense Fog B. O. T. Regulations complied with

Noon—Took Cast of Lead 42 fathms S.S.

Gentle Breeze, Smooth sea, & Fog. Regulations attended to

P.M.

1.30—Fog lifted

2.20—Set in Dense Fog B O T Regulations attended

4—Light Breeze, Smooth sea, & Fog. Regulations attended to 3158

5—Cast of lead 55 fthms Shell Log 34

6.55—Fog lifted, Engines Full Speed

8—Light Breeze. Smooth sea & Clear Wr. Sky Cloudy.

9—a/c N50°W

Midnight—Light Breeze, Smooth sea & Clear weather

3159

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3160 **LOG OF THE S. S. "WILLDOMINO" from Ponta Delgada to Sydney C-B.**

Date Tuesday July 20th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		N50°W	SW		
	2		"	"		
	3		"	"		
	4	114	"	"	2	29.97
	5		"	"		
	6		"	"		
3161	7		"	"		
	8	142	"	"	4	29.98
	9		"	"		
	10		N62°W	"		
	11		"	"		
	12	168	"	"	2	29.84

Latitude 46°8'N Longitude 55°28'W Course N74°W Distance 152 miles Speed 6.27K Running Time 24H-14m

	P.M.					
	1		N62°W	SW		
	2		"	"		
3162	3		"	"		
	4	21	"	"	4	29.78
	5		"	"		
	6		"	"		
	7		"	"		
	8	43	"	"	5	29.70
	9		"	"		29.68
	10		"	"		29.65
	11		"	"		29.62
	12	62	"	"	6	29.59

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

A.M. 3163

4—Light Airs Smooth Sea & passing rain & clear weather

8—Moderate wind & sea & Rain Sky overcast

9—Set in Fog—B. T. Regulations attended, Engines eased

9.40—Cast of lead 71 fthms Rocks Log 153

Noon—Cast of lead 50 fthms P. Log 168

Light Airs Smooth sea—Foggy Wr. B. T. Regulations attended to

P.M.

2—Cast of Lead 37½ fthms Log 10

4—Moderate wind & sea & Foggy weather
B. T. Regulations complied with 3164

6.10—Took cast of lead 33 fthms G. S. Log 34

8—Fresh Breeze Moderate sea & hazey sea & misty weather

10—Cast of Lead 32 fthms P. S. Log 52

Midnight—Strong Breeze & Rough Sea & Foggy weather
B. T. Regulations Complied with

3165

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3166 **LOG OF THE S. S. "WILLDOMINO" from Ponta Delgada to Sydney C-B.**

Date Wednesday July 21st 1920

	Hour	Log	Course	Wind		Barometer
	A.M.		Stand.	Direct	Force	
	1		N62°W	SW		
	2		N65W	"		
	3		"	WSW		
	4	76	"	"	6	29.61
	5		"	"		
	6		"	"		
3167	7		"	"		
	8	92	"	"	6	29.66
	9		"	"		
	10		"	"		
	11		"	"		
	12	110	"	"	4	29.72

Latitude 46°28'N Longitude 58°6'W Course N80W Distance 115 miles Speed 4.76K Running Time 24H-10m

	P.M.					
	1		N72°W	WSW		
	2		"	"		
3168	3		"	"		
	4	29	"	SW	4	29.72
	5		"	"		
	6		"	"		
	7		"	"		
	8	53	"	"	4	29.70
	9		"	"		
	10		"	"		
	11		"	"		
	12	77	"	"	2	29.68

(Running lights burning sunset to sunrise)

Tanks & Bilges Sounded A.M. & P.M.
Ventilation of Holds & Bunkers & Cargo attended to

Claimant's Exhibit E-2.

A.M. 3169

2—Took Cast Patent Sounder 26 fthms Log 69 a/c N65°W

4—Strong breeze, rough sea & Foggy weather B. T. Regulations complied with

6.15—Cast of lead 100 fthms No Bottom Log 84

7.30—Fog Lifted Engines Full speed

8—Strong breeze Moderate sea & Clear weather

10—Wind & sea Moderating gradually

Noon—Moderate wind & sea & hazey weather a/c N72°W

P.M.

4—Moderate wind & sea & Clear weather 3170

8—Similar Weather & Conditions

8.30—Fog Set in B. T. Regulations attended to

Midnight—Light Airs Moderate Sea & Foggy Weather B. T. Regulations attended to

3171

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3172 **LOG OF THE S. S. "WILLDOMINO" from Ponta Delgada to Sydney C-B.**

Date Thursday July 22nd 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		N30°W	SW		
	2		"	"		
	3		S5°E	"		
	4	104	S2°E	"	4	29.62
	5		"	"		
	6		S20°W	"		
3173	7		Various	"		
	8	132	"	"	4	29.62
	9		"			
	10		"			
	11		At North Sydney			
	12					

Latitude-Longitude Sydney C-B. Course Various Distance 120 miles Speed 5.54K Running Time 21H-39m

	P.M.	
	1	At North Sydney
	2	"
3174	3	"
	4	"
	5	"
	6	"
	7	South Sydney
	8	"
	9	"
	10	"
	11	"
	12	"

(Anchor lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

A.M. 3175
2.20—a/c S5°E
3.20—a/c S2°E
4—Moderate wind Smooth sea & Hazey Horizon
5.35—a/c S29W Log 17
8—Similar Weather & Conditions—Log Hauled in
9.30—Received Pilot & proceeded
10.30—Came to Anchor off North Sydney Stbd Anchor 45 fthms Chain
10.45—Received Pratigue Finished with Engines
Moderate wind & fine Weather at Noon.
Receiving about 10 Tons Fresh Water for Deck purposes 3176
P.M.
5.15—Commenced heaving up Anchor again
5.30—Anchor up & proceeded towards South Sydney Pilot directing
6.40—Came to Anchor off Sydney awaiting Bunker berth Stbd Anchor 45 fthms Chain
Day ends with mod wind & fine weather
Quartermasters on duty day & night
Ship & moorings & lights attended to

3177

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3178 **LOG OF THE S. S. "WILLDOMINO" from Ponta Delgada to Sydney C-B.**

Date Friday July 23rd 1920

	Hour	Log	Course	Wind		Barometer
	A.M.		Stand.	Direct	Force	
	1					
	2		At Sydney			
	3					
	4		Bunkering			
	5		"			
3179	6		"			
	7		"			
	8		"			
	9		"			
	10		"			
	11		"			
	12		At Anchor			
	P.M.					
	1			SSW		
	2		S47°E	"		
	3		S34E	"		
	4	13	"	"	3	29.68
	5		Various	"		
3180	6		S57W	"		
	7		"	"		
	8	41	S70W	SSE	5	29.60
	9		South	"		
	10		S65W	"		
	11		"	"		
	12	68	"	"	3	29.54

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

A.M.—Light S-W. wind & fine weather s/s At Anchor 3181
8.30—Received pilot & Tug & Commenced heaving up Anchor
9.5—Anchor up & proceeded towards Coal Spouts
9.30—2nd Tug assisting into berth
10—All moored at Bunker spouts & Commenced Bunkering
10.45—Finished Bunkering
10.55—Received pilot & Tug. Singled up moorings.
11.20—Cast off moorings & left the wharf
11.45—Came to Anchor in stream off Sydney Stbd Anchor
45 fthms chain. Finished with Engines 3182
P.M.
12.45—Received Pilot & commenced heaving up Anchor
1.1—Engines Full ahead Anchor up
1.50—Discharged pilot & proceeded Full ahead
2.25—Flat Point Abm dist ¾′ Set Log & Course S47°E
3.42—a/c S34°E
Gentle Breeze Smooth sea & Clear weather
4.30—Flint Isld Abm W/N dist ¾′ Log 16
5.45—Seatari Lt Hs Abm W dist 4′ Log 26 a/c S57°W
8—Fresh Breeze Moderate sea & Hazey Weather a/c S70°W
8.15—Set in Dense Fog B. T. Regulations attended to a/c South 3183
9—a/c S65°W Log 48
Gentle Breeze Moderate sea & Dense Fog. B. T. Regulations complied with

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3184 **LOG OF THE S. S. "WILLDOMINO" from Sydney C-B to Halifax N-S**

Date Saturday July 24th 1920

Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
1		S65°W	WSW		
2		"	"		
3		"	"		
4	92	S65°W	"	4	29.51
5		S87°W	"		
6		"	"		
3185 7		"	"		
8	109	Various	"	4	29.44
9			"		
10	O. F. Lat 45°-17'N		"		
11	Long 60°-57'W		"		
12			"	4	29.29
Latitude 45-15N Longitude 60°54 W					
P.M.					
1		At Anchor	SSW		
2		"	"		
3		S75°W	"		
4		"	"	5	29.28
5		"	"		
3186 6		s/s unmanageable At Anchor	"		
7		"	"		
8		"	"	5	29.27
9		"	"		
10		"	"		
11		"	"		
12		"	SW	5	29.29

(Anchor lights burning sunset to sunrise)
Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo attended to
Holds & Bilges Sounded Every Hr during Nights by Officer & showed no Increased of Water

Claimant's Exhibit E-2.

A.M.—Dense Fog. Engine room Telegraph at Stand by. 3187
4—Moderate wind & Dense Fog. Moderate sea. B. T. Regulations attended Engines going at Reduced speed
4.30—Took Cast patent Sounder 91 fthms M & S Log 93 a/c S87°W
6.30—In dense fog & reduced speed, steamer suddenly struck submerged object end on, Put Engines Full astern & backed off & sounded ships Tanks & Bilges & found Fore Peak filling & No I Hold 18 ft Stbd & 21 ft Water Port side took cast of lead & found 10 fathoms Water. Swung Out Lifeboats.
8—Courses Various, Water Stationary, Engines going at Reduced speed. Mod sea & Fog 3188
10.30—Cast of lead 36 fthms
10.40—Came to Anchor, mod sea & Dense Fog
Noon—Moderate wind & sea & dense Fog s/s At Anchor
Tanks & Bilges sounded every Hr. & Water leakage remains stationary
P.M.
2.15—Hove up Anchor, & proceeded slow ahead
2.25—Full ahead
2.45—Streamed log Set Course S75°W
4—Fresh Breeze Rough sea & Dense Fog & Rain. B. T. Regulations attended 3189
Tanks & Bilges carefully watched & water found stationary
5—Cast of lead 50 fthms stones & rocks Log 3
5.20—Stopped steamer & let her drift, she wouldn't steer a Course
6—Came to Anchor in 32 fthms water 6 shackles stbd anchor
8—Fresh Breeze mod sea & Clear Wr. s/s At Anchor No I Hold soundings remaining same as 7 P.M. Position by D. R. Gaunet Pt Bore S30E 7 miles & Cranbery Isld Lt bore North 14°E.
9.45—Thick Fog & Rain Set in
Soundings in No I Hold remaining the same
Fresh S. W. Wind mod sea & Foggy weather

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3190 **LOG OF THE S. S. "WILLDOMINO" from Sydney C-B to Halifax N-S**

Date Sunday July 25th 1920

	Hour	Log	Course	Wind		Barometer
	A.M.		Stand.	Direct	Force	
	1		At Anchor	SW		
	2		"	"		
	3		"	"		
	4		"	"	6	29.28
	5		"	WSW		
3191	6		"	"		
	7		"	"		
	8		"	"		29.32
	9		"	WNW	6	
	10		"	"		
	11		"	"		
	12		"	"	3	29.32
	P.M.					
	1		At Anchor	Wly		
	2		"	"		
	3		"	"		
	4		"	"	4	29.40
	5		"	"		
3192	6		"	"		
	7		"	"		
	8		S75W	"		29.46
	9		"	"		
	10		s/s Lady "Laurier" Convoying	"		
	11		S87W	"		
	12	13	"	"		29.46

(Running lights burning sunset to sunrise)

Tanks and Bilges Sounded A.M. & P.M.
Ventilation of Holds and Cargo Carefully Attended to
Damaged Tanks Carefully watched every Hour

Claimant's Exhibit E-2.

A.M.—Tanks & bilges sounded every hour by officer of watch and water found not to be increasing in ship. 3193

3.15—Cast of lead 36 fathoms of water.

4—Strong breeze heavily wly sea and dense fog B T Regulation complied with. Tanks and bilges sounded every hour and showed slight decrease water in No. 1 Hold.

8—Strong wind and fog. Similar wth and conditions. S/S at anchor B T Regulations complied with.

10.15—Commenced heaving up anchor.

10.45—Anchor up.

10.45—Came to anchor again for engine trouble. Engineers fixing same, tanks and bilges sounded and remain the same with no increase of water. 3194

Gentle breeze mod. and strong breeze mod. sea and foggy weather.

P.M.

3.40—Engines repaired, but unable to go astern.

Received radio tug leaving for our assistance.

Tanks and bilges sounded and found water to remain steady.

4—Moderate wind, heavy hd. swell and dense fog B. T. Regulations attended.

6.30—Fog lifted. Sky clearing.

8—Strong breeze heavy hd. sea and clear weather. Commenced heaving anchor. 3195

8.15—Anchor up and proceeded full speed, set course S75°W.

8.30—Cranberry Lt. Bore N19°E dist 10′ Log 0.

10.30—S/S Lady Laurier convoying steamer, Set course S87°W.

Tanks and bilges sounded and water found stationary in No. holds.

Moderate wind heavy head swell and clear weather.

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3196 **LOG OF THE S. S. "WILLDOMINO" from Sydney C-B to Halifax N-S**

Date Monday July 26th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		S87°W	WSW		
	2		s/s Lady Laurier			
			Convoying	W		
	3		"	"		
	4	28	"	"	2	29.43
3197	5		Various	"		
	6		following convoy	"		
	7		"	"		
	8	44	"	"	4	29.50
	9		"	"		
	10		"	"		
	11		"	"		
	12		At Anchor	"		29.51
	Latitude-Longitude Beaver Island N. S.					
	P.M.					
	1		At Anchor	West		
	2		"	"		
	3		Proceeded in Tow	"		
3198	4		of s/s Lady Laurier	"	2	29.54
	5		Courses Various	"		
	6		"	"		
	7		"	"		
	8		"	"	4	29.56
	9		"	"		
	10		"	"		
	11		"	"		
	12		"	"	2	29.59

(Running lights burning sunset to sunrise)

Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo attended to
Water in Holds remaining constant.

Claimant's Exhibit E-2.

A.M. 3199

2.50—Country Isld Lt Abm dist 5½ miles Log 24

3.15—Country Isld Lt Buoy Abm dist 2 miles Log 25½ Tanks & Bilges sounded twice during Watch & found to remain the same

4—Light Breeze, Mod SW Swell & Fine weather Convoyed by s/s "Lady Laurier"

6.30—Gas Buoy off Liscombe Abm N¼ dist 1 mile Log 38

7—s/s Scotia Came Alongside

7.30—Spoke Scotia But didn't require his assistance

8—Moderate wind, heavy head swell, & fine Clear weather Vessel pitching heavily & following Convoy s/s Lady Laurier 3200

11.5—Came to Anchor off Beaver Isld to connect up Tow

Noon—Moderate wind & sea & fine clear Wr. s/s at anchor

P.M.

1.30—Lady Laurier moved into position to connect up tow

2.15—Tow lines all fast, Commenced Heaving up Anchor

2.30—Stbd Tow line Broke, "Convoy's Rope s/s Lady Laurier"

3.30—Proceeded Full ahead on One Tow line & using main Engines

4—Mod SW Swell & fine Clear weather, Vessel In Tow 3201

5.7—Sheet Rock buoy abm 186W

5.17—Sheet Rk & Sheet Rk buoy N13E Beaver Isld Bore N57E

8—Moderate wind & swell & Clear Weather Courses Various s/s In Tow

10.45—Sambro Lt Bore West

Midnight—Light Airs Mod sea & fine Clear weather Vessel in Tow of Lady Laurier

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3202 **LOG OF THE S. S. "WILLDOMINO" from Sydney C-B at Halifax Nova Scotia**

Tuesday July 27th 1920

A.M.—Vessel proceeding in Tow for Halifax
Light Wly wind & fine weather
0.15—Stopped for Pilot
0.30—Received Pilot & proceeded into Halifax
1.50—Stop Engines
2.12—Came to Anchor in Halifax Hrbr 45 fthms chain Stbd Anchor & commenced letting go Tow Ropes
3203 2.40—Hove in Tow Ropes & discharged "Lady Laurier" Tug
10.20—Received Wreckage Boat "Maggie Marshall" and surveyors alongside & prepared to examine damaged plates
10.40—Diver went down to inspect Damage
11.20—Diver up & made report to Surveyors

P.M.
1—Wreck Boat & party departed
Received for E. P. 50 Tons of Fresh Water
3.10—Lighter of coal alongside
3.30—Commenced Bunkering
3204 Water in Holds & Damages Plates carefully watched
Mod wind & fine weather all day long
9—Finished Bunkering
Quartermasters on duty day & night
(Anchor lights burning sunset to sunrise)

Claimant's Exhibit E-2.

Wednesday July 28th 1920 3205

Light Nly wind & fine weather s/s At Anchor
Water in Holds & Bilges remaining stationary
Received 16 Tons of Fresh Water for drinking (Balance for Engineers)
12.30—Received Pilot & 3 Tugs & Hove up Anchor & proceeded towards Furness's Wharf to shift Cargo
1.50—All moored in berth alongside quay
2.55—Commenced discharging Cargo at No 1 & No II & Reloading same at No 4 & No 5 Holds four shore winchmen 3206
5—Stopped for Tea
7—Resumed again
Midnight—Stopped discharging for Lunch hour
Day ends with Light wind & fine Clear weather
Quartermasters on duty day & night

Thursday July 29th 1920

A.M.
1—Labourers resumed shifting Cargo from No 1 & No II to No 4 & No 5
7—Stopped work for Lunch
8—Resumed work again
Light wind & fine clear weather 3207
11—Ceased discharging at No 1 for the day
P.M.
1—Commenced taking in more Bunkers
4—Commenced taking in Fresh Water for Engine Purposes
5—Finished loading at No 4 Hold & went to Tea
7—Resumed shifting Cargo from No 2 to Bunker & No 3 Hatch
11—Ceased all work for the day
Quartermaster on duty Day & night. Tanks & Bilges Carefully attended to

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-2.

3208 **LOG OF THE S. S. "WILLDOMINO" from Sydney C-B at Halifax N-S**

Friday July 30th 1920

A.M.—Light wind & fine weather
7—Resumed Reloading cargo from Shed at No. 5 & Bunker
3—Shore winchmen employed driving winches
7—Resumed taking in Bunker Coal.
Salvage People from s/s Maggie Marshall shoring up No. 1 Bulkhead in No. 2
11.45—Finished loading at No 3 Hold.
3209 Noon—Ceased work for dinner
P.M.
1—Resumed again. All hatches finished except No. 2 Hold
1.30—Commenced putting Cork on After Deck
5—Finished Bunkering and Finished Cork on After deck
7—Started on taking on Stone Ballast on After Deck
9.15—Ceased All work for the day

Saturday July 31st 1920

A.M.
7—Resumed taking on Ballast
3210 8—Finished Ballast 400 Tons
Continued trimming same till 10 A.M. (Shore Labor)
Salvage people working all day at No I Bulkhead till 9 P.M.
Received New York Pilot on Board
Also Standard Compass from the Opticians
Moderate wind & Rain during the afternoon
Crew sending down derricks & Preparing Ship for sea
3 to 4—Crew taking Stores on Board (Sea Stock)
Day ends with mod wind & misty weather
Quartermasters on duty day & night
Water in Tanks & Bilges remaining Stationary
Tanks & Bilges Carefully Watched
Ventilation of Holds & Cargo strictly attended to

Claimant's Exhibit E-2.

Sunday August 1st 1920 3211

A.M.—Moderate Wind & Rainy Weather
8—Salvage people resumed putting up shores on No 1 Bulkhead in No 2 Hold
No other work at ship this day
Noon—Finished shoring up Lower Bulkhead
P.M.
1—Resumed at No II Hold putting Steam Pump down Hold
5—Finished putting Pump down Hold, Ceased work for the day
Day ends with Strong wind & Rain 3212
Water in Holds & Bilges Carefully watched All day long
Quartermasters on night duty. Cargo properly ventilated

Monday August 2nd 1920

A.M.—Strong wind & heavy rain
7—Shore Gang 12 men securing Lemons in No II Hold
Noon—All Cargo secured
P.M.
1.50—Received Pilot & 2 Tugs, Unmoored & left the wharf & proceeded down Harbour to Georges 3213
Isld & adjusted Compasses
4.15—Came to Anchor in River, waiting for Tugs
Received 2 Pumpmen on board to attend Pump in No II Hold
6—Received Ocean Tug Balbridge alongside, busy taking Wire Bridles on board for Towing purposes till 7 P.M.
s/s at Anchor in River. Anchor watches Kept.
Day ends with mod wind & dense Fog.
Drinking water last filled: Halifax

J. THIRKELL, Chief Officer J. BEEBY, Master

3214

Cover of Claimant's Exhibit E-3.

3215

VOYAGE 4 HOMEWARD CONTINUED from
HALIFAX N. S. to NEW YORK.

WILLIAMS STEAMSHIP CO., INC.

CHIEF OFFICER'S LOG BOOK—

STEAMSHIP "WILLDOMINO"

3216

3217

Claimant's Exhibit E-3

WILLIAMS S. S. CO., INC.

CHIEF OFFICER'S LOG BOOK
OF THE
STEAMSHIP "WILLDOMINO" of Halifax, N. S.

Tons Registered 4173 Registered No. 141302

ON A VOYAGE

3218

From Halifax, N. S.
To New York

———

Draught
of water leaving .....forward .... aft ....
" arriving at New York forward 14'-6" aft 18'-6"

3219

Claimant's Exhibit E-3.

3220 **LOG OF THE S. S. "WILLDOMINO" from Halifax N-S to New York**

Date Tuesday August 3rd 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	9		Vessel in Tow	S		
	10		Various	"		
	11	0	"	"		
	12	9	"	"	2	29.79

Latitude 44°25'N Longitude 63°18'W Course Various
3221 Distance 9 Speed 6.76K Running Time 1H-20m

	P.M.					
	1		s/s in Tow	SW		
	2		S68W	"		
	3	24	"	"		
	4	33	"	"		29.82
	5		"	WSW		
	6		"	"		
	7		"	"		
	8	56	"	"		29.90
	9		"	"		
	10		"	"		
	11		"	"		
3222	12	81	"	NW		29.96

(Running lights burning sunset to sunrise)

Water in Holds & Bilges (No. I) Carefully watched
Ventilation of Holds & Cargo strictly attended to
Tanks & Bilges sounded A.M. & P.M.

Claimant's Exhibit E-3.

A.M.—Light SSE wind & Dense Fog 3223
s/s at Anchor in River, waiting for Fog to lift
8.30—Commenced heaving up Anchor
9—Made Tow line fast to Tug Balbridge
9.10—Anchor up & proceeded to sea, pilot directing, in Tow of Tug Balbridge
10—Stopped Engines, seeking pilot Cutter in the mist
10.40—Discharged local pilot & proceeded sea pilot directing Engines slow, ahead
Chebucto Hd bearing West (True) Log 0
Light Airs Moderate sea & Foggy Wr. s/s in Tow, speed moderate, C. O. P. S. gave 51 fathoms Log 9 at noon 3224

P.M.
1.00—Sambro L. V. Abeam distant 1½ miles Log 16
1 to 4—Crew shifting Stone Ballast on After deck
4—Moderate wind & sea & Fog C. O. P. S. gave 85 fathoms Log 33
Engines going slow in Tow of Tug "Balbridge"
5.30—Fog lifted
7.5 to 7.20—Engines stopped for Repairs, without Bridge warning
8—Moderate wind & Sea & Clear weather, speed moderate s/s In Tow
Pumpmen reported all well in No II Hold
Midnight—Moderate wind & Passing Fog, & Mod sea 3225
s/s in Tow
Pumpmen reported All well on No I Hold Bulkhead

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-3.

3226 **LOG OF THE S. S. "WILLDOMINO" from Halifax N-S to New York**

Date Wednesday August 4th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		Vessel in Tow	NNW		
	2		WSW	"		
	3		"	"		
	4	104	"	"	2	29.96
	5		"	"		
	6		"	"		
3227	7		"	"		
	8	130	S84°W	"	2	30.01
	9		"	Various		
	10		"	"		
	11		"	"		
	12	156	"	"	2	30.01

Latitude 42°55'N Longitude 65°58'W Distance 165 miles Course Various Speed 6.83K Running Time 24H-00m

	P.M.					
	1		Vessel in Tow	SE		
	2		W¾S	"		
	3		"	"		
3228	4	27	"	"	1	29.98
	5		"	"		
	6		"	"		
	7		"	SSE	2	
	8	55	"	"		29.94
	9		"	"		
	10		"	"		
	11		"	E		
	12	83	"	"	2	29.91

(Running lights burning sunset to sunrise)

Water in No I Hold & Bilges Carefully watched
Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo Carefully attended to

Claimant's Exhibit E-3.

3229

A.M.
0.25—C. O. P. S. gave 85 fthms Log 82
2.30—C. O. P. S. gave 51 fthms Log 95
4—C. O. P. S. gave 100 fthms Log 104
Light Airs, Smooth sea & misty weather s/s In Tow, Pilot directing
6.40—a/c S84°W
7.45—C. O. P. S. gave 65 fthms stones Log 28
8—Light Airs, Smooth sea, & Dense fog Pilot directing s/s in Tow
Pumpmen reported All well on No I Bulkhead
9.30—Engines Half speed ahead
Noon—Light airs smooth sea & Fog. C. O. P. S. 75 fthms at Noon s/s In Tow 3230
Pumpmen reported all well on No I Bulkhead
Crew working stone Ballast from 6 A.M. to 4 P.M.
P.M.
1.30—C. O. P. S. gave 70 fthms Log 10
3—C. O. P. S. gave 61 fthms Log 20
4—Light Airs, Smooth sea & Foggy Wr. s/s In Tow, Pilot directing
Pumpmen reported all well on No I Bulkhead
4.35—C. O. P. S. gave 97 fthms G. S. Log 30
6.30—C. O. P. S. gave no soundings Log 45
8—Light airs, Smooth sea, & Dense Fog
Pumpmen reported all well on No I Bulkhead 3231
10.30—C. O. P. S. gave no soundings Log 72
Light wind, Smooth sea & Hazey weather s/s in Tow, Pilot directing

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-3.

3232 **LOG OF THE S. S. "WILLDOMINO" from Halifax N-S to New York**

Date Thursday August 5th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		Vessel in Tow	ENE		
	2		W¾S	"		
	3		"	"		
	4	113	"	"	2	29.83
	5		"	"		
	6		"	"		
	7		"	"		
3233	8	141	"	"	2	29.86
	9		"	"		
	10		West	"		
	11		"	"		
	12	169	"	"	3	29.94

Latitude 41°47′N Longitude 69°32′W Course S67°W Distance 174 miles Speed 7.18K Running Time 24H-14m

	P.M.					
	1		Vessel in Tow	NW		
	2		West	"		
	3		S	"		
3234	4	28	West	"	2	29.96
	5		NxN	SW		
	6		"	"		
	7		"	"		
	8	56	"	"	4	29.96
	9		"	"		
	10		"	SE		
	11		WxS¾S	"		
	12	86	"	"	2	29.96

(Running lights burning sunset to sunrise)

Water in No I Hold & Bilge carefully watched
Ventilation of Holds & Cargo strictly attended to
Tanks & Bilges sounded A.M. & P.M.

Claimant's Exhibit E-3.

A.M. 3235

0—C. O. P. S. gave 150 fthms Log 85

1.30—C. O. P. S. gave 140 fthms Log 95

3—C O. P. S. gave 140 fthms Log 105

4—Light Airs, Smooth sea, & Passing Fog s/s In Tow, Pilot directing

4.30—C. O. P. S. no soundings Log 18

8—Light Airs, Smooth sea & clear weather s/s In Tow Pumpman reported all well on No 1 Bulkhead

Noon—Gentle breeze Smooth sea, & Clear weather s/s In Tow, Pilot directing

6 A.M. to 4 P.M. Crew working Stone Ballast

P.M. 3236

1.30—a/c South

2.15—Pollick Shire L. V. Abm distant 5 mls Log 16

3.25—a/c West

4—Light Breeze, Smooth sea, & hazey weather

4.35—Great Round Shoal L. V. Abm SW½S dist ½ ml Log 35

5.20—Great Pt LH Abm SxN dist 3′ Log 39

6.45—Cross Rip L. V. Abm SxW dist ½ ml Log 48

7.50—Hedge Fence L. V. Abm NxE

8—Moderate wind & sea & clear weather s/s In Tow, Pilot directing

Pumpmen reported all well on No 1 Bulkhead

Midnight—Light wind, Smooth sea, & fine Clear weather 3237

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-3.

3238 **LOG OF THE S. S. "WILLDOMINO" from Halifax N-S to New York**

Date Friday August 6th 1920

	Hour A.M.	Log	Course Stand.	Wind Direct	Force	Barometer
	1		Vessel in Tow	WSW		
	2		S70°W	"		
	3		"	"		
	4	110	"	"	3	29.94
	5		"	ESE		
	6		"	"		
3239	7		"	"		
	8	135	"	"	2	29.92
	9		"	"		
	10		"	"		
	11		"	"		
	12	160	"	"	2	29.92

Latitude 40°34′N Longitude 72°35′W Course Various Distance 171 miles Speed 7.06K Running Time 24H-12m

	P.M.					
	1		Vessel in Tow	Various		
	2		S66W	"		
	3		"	"		
3240	4	25	S87°W	"	2	29.85
	5		"	ESE		
	7		"	"		
	8		Various	"	3	29.84
	9		Pilots Orders	"		
	10		Anchored	"		
	11		"	"		
	12		"	"	3	29.82

(Anchor lights burning sunset to sunrise)

Water in No I Hold Carefully watched
Ventilation of Holds & Cargo strictly attended to
Tanks & Bilges sounded A.M. & P.M.

Claimant's Exhibit E-3.

A.M. 3241

3.10—Block Isld Lt Abm dist 5 miles Log 105

4—Moderate wind Smooth sea, & passing Rain

4.45—Engines Dead slow for Pump repairs

5.20—Half speed again

5.20—Montauk Point Abm. NxW¾W dist 8 miles Log 18

8—Light airs, Smooth sea, & Rain. Pumpmen report all well in No. I Hold

Noon—Light Airs, Smooth sea & Clear weather s/s In Tow Sea Pilot directing

P.M.

2.50—Fire Isld L. V. Abeam distant 1½ miles Log 17 a/c S87W 3242

4—Light Airs, Smooth sea & misty weather

7—Stopped for Pilot off Ambrose L. V. & shortened up Tow Rope

7.25—Received pilot & proceeded

8—Moderate wind Smooth sea & Dense Fog Pilot directing

8.30—Let go Tow Rope & Came to Anchor in Ambrose Channel. Dense Fog

Midnight—s/s At Anchor, Light Airs & Dense Fog, B. T. Regulations attended to

3243

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-3.

3244 **LOG OF THE S. S. "WILLDOMINO" from Halifax N-S at New York**

Saturday August 7th 1920

A.M.
5.5—Hove up anchor & proceeded Pilot directing
8—Passed Quarantine station
8.20—s/s Came to Anchor in New York Bay
Light Airs & fine Clear weather
Crew rigging Derricks Etc.
No work at Cargo this day
Day ends with Heavy Thunderstorms & Rain
3245 Ventilation of Cargo attended to
Pumpmen watching No 1 Bulkhead
Latitude-Longitude: New York Distance 55 miles from noon Friday

Sunday August 8th 1920

A.M.—Light Airs & fine Weather
s/s at Anchor in New York Bay
No Work this day at ship or Cargo
7.30—s/s in Foul Berth Hove up Anchor & proceeded under Main Steam to a safe anchorage. 8.30
3246 P.M.—Came to Anchor again off Brooklyn
Day ends with Light winds & fine weather
Quartermasters on duty day & night
(Running lights burning sunset to sunrise)
Tanks & Bilges sounded A.M. & P.M.
Ventilation of Cargo strictly attended to
Water in No I Hold carefully watched

Claimant's Exhibit E-3.

Monday August 9th 1920 3347

A.M.—s/s At Anchor off Brooklyn
7.20—Received Pilot & 2 Tugs
7.30—Anchor up & proceeded
10—Docked & made fast at Pier C Jersey Cy ready to discharge cargo
P.M.
2.55—Commenced discharging at No 2 & shifting Cork at No 4 (3 shore winchmen)
4—Ceased at No. 4
5—Ceased work for the day
Day ends with light wind & fine weather 3348
Finished up with the Crew this day. Pumpmen still on board
Fireman's Cook Night watchman

Tuesday August 10th 1920

A.M.—Moderate wind, dull & Overcast
7.30—Resumed discharging at No 2 3 & 4 Holds 6 shore winchmen
Paid off crew this day (All except Steward No 2 Bos'n & Firemans Cook & Carpenter)
10—No 2 stbd Winch Broke down
10.10—No 1 Winch & Continued 3249
Noon—All hatches left open by stevedore
P.M.
1—Resumed discharging at No 3 4 & 5 Holds
Ceased at No 2 Hold at Noon on a/c of stbd winch being disabled
5—Ceased discharging for the day
Pumpmen & Officers getting Pump up
7.30—Pump Landed, finished with Steam
Day ends with moderate wind & Heavy rain
Firemen's Cook on night duty

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-3.

3350 **LOG OF THE S. S. "WILLDOMINO" from Halifax N-S at New York**

Wednesday August 11th 1920

A.M.—Light Airs, dull & Overcast
8—Resumed discharging at No. 3 4 5 Holds 6 shore winchmen
Noon to 1 P.M.—Ceased for dinner
1—Resumed again
Noon to 1 P.M.—Ceased for dinner 1 P.M.—Resumed
Pumpmen left the ship this day for Halifax
3351 Day ends with Light wind & fine weather
Firemans Cook on Night duty
No. I Hold water carefully watched

Thursday August 12th 1920

A.M.
7.30—Resumed discharging at 3 4 5 Holds (6 Shore winchmen)
Noon—Ceased at No 3 & Resumed at No 2 4 5 at 1 P.M.
Moderate wind & fine weather during the day
P.M.
5—Ceased discharging for the day
3252 Fireman's Cook on Night duty
Day ends with light wind & fine weather
No I Hold Water Carefully watched
Tanks & Bilges Sounded A.M. & P.M.
Ventilation of Cargo attended to
No I Hold Water Carefully watched

Claimant's Exhibit E-3.

Friday August 13th 1920 3253

A.M.—Light Breeze, dull & Overcast
7.30—Resumed discharging at No 2 4 5 Holds
6 Shore Winchmen driving winches
Noon to 1 P.M.—Stop for dinner
P.M.
1—Resumed again
5—Ceased discharging for the day
Day ends with moderate wind & Rain
Firemen's Cook on Night Duty
No I Hold Carefully Watched

3254

Saturday August 14th 1920

A.M.—Light Airs & passing Rain
8—Resumed discharging at No. 2 4 & 5 Holds
6 Shore Winch men driving winches
New Mess Boy for Cabin started this day
Noon—All work on steamer Ceased for the week end
P.M.
4—Received Shore Watchman
Midnight—Watchman relieved by another shore watchman
Day ends with light airs & fine weather 3255

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-3.

3256 **LOG OF THE S. S. "WILLDOMINO" from Halifax N-S at New York**

Sunday August 15th

A.M.—Light Airs & fine weather
8—Shore Watchman relieved by another shore Watchman
No Work at Cargo this day
P.M.
4—Watchman relieved by another shore watchman
Midnight—Watchman relieved by another shore watchman
3257 Day ends with light wind & fine weather
No I Bulkhead carefully watched

Monday August 16th

A.M.—Light wind & fine weather
8—Shore Watchman relieved by another shore guard
10—Resumed discharging at No 2 4 5 Holds 6 Shore Winchmen
Noon to 1 P.M.—Ceased for dinner
P.M.
1—Resumed again
3258 5—Ceased All work for the day
Fireman's Cook Night watchman
Day ends with light wind & Rain showers
Tanks & Bilges sounded A.M. & P.M.
Ventilation of Cargo attended to

Claimant's Exhibit E-3.

Tuesday August 17th 3259

A.M.—Light wind & fine weather
8—Resumed discharging at No 2 4 & 5 Holds
6 Shore Winchmen driving winches
Noon to 1 P.M.—Ceased for dinner
P.M.
1—Resumed again
Paid off two Portugese Engineers this day
5—Ceased discharging cargo at No 2 & No 4 Holds
8—Ceased at No 5 Hold. All finished for the day
Day ends with moderate wind & Heavy Rain storms & lightning 3260
Tanks & Bilges sounded A.M. & P.M.

Wednesday August 18th

A.M.—Light wind & fine weather & passing Rain
8.30—Resumed discharging at No 2 & 5 Holds
4 Shore Winchmen driving winches
10.30—Ceased discharging at No 2 Hold. Only No 5 Hold working
Noon—Ceased for dinner
P.M.
1—Resumed again at No 5 Hold 3261
6—Ceased discharging for the day
Day ends with light airs & passing rain
Fireman's Cook on night duty

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit E-3.

3262 **LOG OF THE S. S. "WILLDOMINO" from Halifax N-S at New York**

Thursday August 19th 1920

A.M.—Light Breeze & fine weather
7.30—Singled up moorings (Mate, 2nd mate, & Bosn & Carpenter)
8.30—Received three tugs & Pilot alongside
9.40—Unmoored & left the wharf, 3 Tugs Towing
P.M.
2—Arrived in berth at 134th Street Dump pier
2.30—All moored in berth ready to discharge
3263 No Work done at Cargo this day
Fireman's Cook on night duty
Day ends with moderate wind & fine weather

Friday August 20th 1920

A.M.—Light wind & fine weather
s/s alongside at Dump Pier, ready to discharge
P.M.
12.20—Received 3 Tugs & Unmoored & left the Wharf
Six men engaged on ship & 2 on shore to let go Ropes
2—Arrived in berth again at another pier
3264 2.30—All moored in berth ready to discharge again
No work at Cargo this day
Day ends with moderate wind & fine weather
Fireman's Cook on night duty
Tanks & Bilges sounded A.M. & P.M.
Ventilation of Holds & Cargo attended to

Claimant's Exhibit E-3.

Saturday August 21st 1920 3265

A.M.—Light breeze & fine weather
Commenced discharging Cork onto Quay from No all Holds
Ten Shore Winchmen driving winches
Noon to 1 P.M.—Ceased for dinner
P.M.
1—Resumed again all but Bunker
4—Received Licensed Shore Watchman on Board
5—Ceased discharging for the night
2nd Bos'n & Shore Watchman on night duty
Midnight—Shore Watchman relieved by another shore Watchman 3266
Day ends with moderate wind & passing rain

Sunday August 22nd 1920

A.M.—Light Airs & fine weather
8—Shore Watchman Relieved by another shore Watchman
No Work at Cargo this day
P.M.
4—Shore Watchman relieved by another shore watchman
Midnight—Shore Watchman relieved by another shore watchman 3267
2nd Bos'n & Shore Watchman on Night duty Guarding Ship
Day ends with Fresh Breeze & fine weather
Ship & Moorings Carefully attended to
Finished with Nigger 2nd Steward this day on a/c of Stealing

J. THIRKELL, Chief Officer J. BEEBY, Master

Claimant's Exhibit F.

3268

(Copy)

THE EASTERN TELEGRAPH CO., LTD. :

GIBRALTAR
Sub

15th June, 1920

No. 2568

The following TELEGRAM Received at
From New York VIA EASTERN
Foreign No. No. of Words 51 Dated 14
3269 Time 9:15 P. M.

88

TO MASTER STEAMER WILLDOMINO CARE AGAMEMNON GIBRALTAR
Con
YOUR COAL REQUIREMENTS EXCESSIVE COST OF BUNKERS GIBRALTAR VERY HIGH MAKE ACCURATE MEASUREMENT REMAINING BUNKERS IF NOT ENOUGH TO MAKE NORTH SYDNEY TAKE ONLY ENOUGH TO REACH THERE CUT DOWN CONSUMPTION IN EVERY WAY IF
3270 FUEL RUNS SHORT REACHING COAST CUT OUT ONE BOILER

WILSHIPCO

Claimant's Exhibit G.

3271

(Emblem Cut)

ORDER FOR SURVEY

St. Michaels the 3rd day of July 1920

To George W. Hayes Esq

His Britannic Majesty's Consul at St. Michaels, Azores

Sir,

I request you will be pleased to issue an Order to competent persons to hold a Survey on the S. S. "Willdomino" of Halifax N. S. for the pur- 3272
pose of ascertaining the present State and Condition and to report to you thereon.

The Charges connected with the Survey will be paid by me.

I am, Sir,

Your obedient Servant,

Signed J. BEEBY
Master

— — — — — — — — — — — — — — — — — —

To Messrs. Thomas Hood, Esq., Chief Engineer S. S. "Lord Kitchener". John J. Frugleton, Chief Engineer S. S. "Fort Russell". 3273

Gentlemen,

In pursuance of the preceding request, I beg you will be pleased to proceed on board the S. S. "Willdomino" of Halifax N. S. and hold the required Survey, and, having done so, return to me this Order, together with your Report thereupon, in writing, under your hands, for which this shall be your warrant.

Claimant's Exhibit G.

Given under my Hand and Seal of Office at the British Consulate at St. Michaels this third day of July one thousand nine hundred and twenty

Signed GEORGE W. HAYES
British Consul
Pursuant

(Seal) (Cancelled stamp)

Pursuant to the aforegoing Order unto us directed,

We, the undersigned, did repair on board the S. S. "Willdomino" at this Port of St. Michaels, Azores, and did then and there hold the required Survey. And we do accordingly declare and Report as follows—

That the S. S. "Willdomino" requires General overhaul of Lubricating Machinery.

General overhauling of Main Engine subject to Chief Engineer's advice.

Auxiliary Machinery to be put into First Class condition.

Sufficient coal and water to be supplied to enable ship to reach her destination.

And we do declare that we have held the aforesaid Survey with such care and equity that we are ready and willing to make oath or solemn and sincere declaration, to the truth and impartiality of these our proceedings, if called upon to do so by competent authority.

Given under our hands at St. Michaels this fifth day of July in the year of our Lord one thousand nine hundred and twenty

Signed JOHN J. FRUGLETON
S. S. "Fort Russell"

do THOS. HOOD
H. M. Tug "Lord Kitchner"

Claimant's Exhibit G.

Received £.3.3.0 each for holding the above Survey at St. Michaels this 5th, July, 1920 3277
Signed THOS. HOOD
do JOHN J. FRUGLETON
(Canceled stamp) (Seal)

GEORGE WILLIAM HAYES His Britannic Majesty's Consul at St. Michaels, do hereby certify and attest that Thomas Hood and John J. Frugleton, did personally appear at this Consulate, and did before me sign the preceding report of Survey and Receipt for Money, their fee for the same.

In testimony whereof, I have thereunto subscribed my name and affixed my Seal of Office at St. Michaels this fifth day of July in the year of our Lord one thousand nine hundred and twenty 3278
Signed GEORGE WILLIAM HAYES
H.B.M.'s. Consul.

— — — — — — — — — — — — — — — — — —

This form of attestation is only to be filled up for copies. In the original, which is to be preserved in the Consulate, it is to be left blank.

I, GEORGE WILLIAM HAYES His Britannic Majesty's Consul at St. Michaels, Azores, do hereby 3279
certify and attest to all whom it doth concern, that the foregoing is a true and faithful copy of the original Survey entered in the Acts of this Consulate, copied therefrom and compared therewith. In testimony whereof I have hereunto set my name and affixed the Seal of this Office at St. Michaels, Azores, this fifth day of July one thousand nine hundred and twenty.
GEORGE W. HAYES
H. B. M's. Consul
(Canceled stamp) (Seal)

Claimant's Exhibit H.

3280 DIVER'S REPORT

At the request of Mr. George W. Hensley, Lloyds Agent at Halifax, we have made a diver's examination of the under water damage to the bow of the S/S "WILLDOMINO" whilst at anchor in Halifax Harbor and beg to submit the following report:

The forefoot is carried away between the four and five foot marks, the stem piece being broken in two, the lower piece about four feet being forced up into the ship's bottom together with the plating and frames as far aft as second frame.

3281 On the starboard side from second frame aft, the keel plate and two plates above are torn back and corrugated as far aft as collision bulkhead leaving an open hole into forepeak—all frames are bent, some broken and torn away from fastenings as far aft as collision bulkhead.

On port side from second frame, keel plate and two plates above are torn from fastenings and crumpled back against collission bulkhead, this being forced back also damage extending to second frame aft.

All transverse "V" sections in ship's bottom

3282 are also torn from fastenings, turned up and pushed back.

From second frame ship's bottom entirely open, plating, frames and "V" sections all being crowded aft against collision bulkhead bending same. Damage commences between four and five foot marks is apparently above level of tank tops but this cannot be definitely ascertained until cargo in No. 1 hold is discharged. Sketch enclosed.

THE MARITIME WRECKING & SALVAGE CO., LTD.

Halifax, N. S.,
July 27, 1920.

S S "WILLDOMINO"

Part of Claimant's Exhibit H.

3283

(DIAGRAM)

3284

3285

Claimant's Exhibit I.

3286

LLOYD'S REGISTER OF SHIPPING.

(Cut)
(Seal)

Port Halifax, Nova Scotia,

July 31st, 1920.

This is to Certify that T. MOON the undersigned Surveyor to this Society did at the request of the Owners Representative attend on board the S. S. "WILLDOMINO" 5755 gross tons register of Halifax, N. S. for the purpose of ascer-
3287 taining the nature and extent of the damage stated to have been sustained through striking a submerged rock during dense fog off Canso, N. S. on July 24th, 1920, on voyage from Lisbon to New York, via Sydney, N. S., loaded.

For further particulars see log books.

On the 27th July, 1920, and subsequently

FOUND.

The fore peak and the No. 1 hold full of water to sea level.

3288 RECOMMENDED.

The vessel be docked for further examination.

As there was no dry dock available for some considerable time a diver was engaged to examine the bottom. Diver's report attached.

As the vessel was loaded with a perishable cargo it was requested that the vessel be allowed to proceed to New York to discharge and drydock.

Claimant's Exhibit I.

Temporary repairs recommended to allow the vessel to proceed to New York, the Underwriters being agreeable. Part cargo be removed from the No. 2 hold and the bulkhead efficiently shored, the cargo taken from the hold to be placed further aft to allow the vessel to trim by the stern, and to be accompanied by an ocean going tug. Soundings to be taken constantly of the No. 2 hold and D. B. tank. 3289

The above temporary repairs were carried out as recommended.

Surveyor to Lloyd's Register. 3290
T. MOON.

This Certificate is issued upon the terms of the Rules and Regulations of the Society, which provide that:—

"While the Committee use their best endeavours to ensure that the functions of the Society are properly executed, it is to be understood that neither the Committee nor the Society are under any circumstances whatever to be held responsible for any inaccuracy in any report or certificate issued by the Society or its Surveyors, or in any entry in the Register Book or other publication 3291 of the Society, or for any error of judgment, default, or negligence of the Surveyors, or other Officers or Agents of the Society."

Claimant's Exhibit J.

3292

LLOYD'S REGISTER OF SHIPPING.

(Cut)

Port Halifax, Nova Scotia

July 31st, 1920.

This is to Certify that I have Surveyed the S. S. "WILLDOMINO" 5755 gross tons register of Halifax, N. S. and that I have transmitted to the Committee of Lloyd's Register of Shipping, London, a Report, stating that all temporary
3293 repairs recommended by me have been completed to my satisfaction, and that I have Recommended that she be continued as classed, subject to being docked for further examination and repairs at New York to which Port the vessel is bound being fit to proceed to New York as recommended.

T. MOON,
Surveyor to Lloyd's Register.

This Certificate is issued upon the terms of the Rules and Regulations of the Society, which provide that:—

3294 "While the Committee use their best endeavours to ensure that the functions of the Society are properly executed, it is to be understood that neither the Committee nor the Society are under any circumstances whatever to be held responsible for any inaccuracy in any report or certificate issued by the Society or its Surveyors, or in any entry in the Register Book or other publication of the Society, or for any error of judgment, default, or negligence of the Surveyors, or other Officers or Agents of the Society."

S.S. "Willdomino" Voyage 4

From Messina, Palermo & Lisbon.

Via Ponta Delgada. Sydney C.B., & Halifax.

To

New York

T.D. means Tween Decks

The Wavy Line ~~~~ thus indicates

Separation of the different Cargos

Stores	No I	No 2	No. 3		No. 4	No. 5	Crews Quarters
	Embroideries Dried Fruit No I T.D. Sardines	Bees Wax No II T.D. Lemons	No III TO all Casks of No III TO Citron	Cork Coal	No IV TO Citrus of Magnesia	Cork Citrus No V TO Acid	
Fore Peak Tank " " "	Sardines Bales of Cork Cork Cork Casks of Citrate of Lime Do	Cases of Lemons " Lemons " " " "	Bales of Cork " " " " " " "	Coal " Bunker Coal. " " " " "	Engine & Boiler Space " " " " "	Bag of Cork Discs Bales of Cork " " " " Filberts or Nuts Pumice Stone	Cases of Lemons " " " " " " " " "	Cork Cork Cases of Lemons Cases of Essence of Lemon " " " " " " Cases of Lemons " " " " " "	After Peak Tank " " "

J. Thirkell.
Chief Officer

CLAIMANTS
EXHIBIT- K.

Claimant's Exhibit K.

3295

(PHOTOSTAT)

3296

3297

Claimant's Exhibit L.

3298

(PHOTOSTAT)

3299

3300

Claimants Ex. L

Claimants Exhibit L

COMPASS OBSERVATIONS OF S. S. "Willdomino"

From Oct 9/20 Ponta Dilgada toward Sydney C.B.

Date 1920	Time	Ship's Position Lat.	Ship's Position Long.	Ship's Head Stand.	Ship's Head Steer	Observed Bearing	True Bearing	Error	Variation by Chart	Deviation Stand.	Deviation Steer	Heel	Observer	REMARKS.
July 17th	6-15pm	45°N	46½°W	N30°W	N27°W	N44°W	N72°W	25°W	26½°W	1½°W	— " —	— " —	J.J.	Very Good Bearing
"	7-6pm	"	46½°W	"	"	N36°W	N64°W	28°W	26½°W	1½°W	— " —	— " —	J.J.	" " "
18th	6-42am	43½°N	47½°W	"	"	N107°E	N81°E	26°W	27°W	1°E.	— " —	— " —	J.J.	Fairly Good bearing
"	6-6pm	44½°N	49½°W	N45°W	N40°W	N43°W	N73°W	30°W	27½°W	2½°W	— " —	— " —	J.J.	Observed under Normal conditions
19th	Sunrise	45°N	50½°W	"	"	N86°E	N59½°E	26½°W	27½°W	1°E	— " —	— " —	J.J.	Very Good Sunrise bearing
"	7-13pm	45½°N	55°W	"	"	N35½°W	N62½°W	27°W	27¾°W	¾°E.	— " —	— " —	J.J.	Very Good bearing
21st	5-50pm	46½°N	59°W	N72°W	N57°W	N53°W	N76°W	23°W	27°W	3°8E.	— " —	— " —	J.J.	Apparent Time taken from P.M. Sight at 6-10pm
"	6-37pm	"	"	"	"	N43°W	N70°W	27°W	27°W	Nil	— " —	— " —	J.J.	Very Good bearing
"	Sunset	"	"	"	"	N33½°W	N60½°W	27°W	27°W	"	— " —	— " —	J.J.	Very Good Sunset Bearing
22nd	Sunrise	"	60°W	S2°E	South	N86°E	N60½°E	26½°W	26½°W	"	— " —	— " —	J.J.	" " Sunrise "
			Sydney C.B. towards Halifax N.S.											
23rd	6-29pm	Off Scatari		S72°W	—	N46°W	N72½°W	26½°W	26½°W	Nil	— " —	— " —	J.J.	Very Good bearing
24th	7-13pm	45°N	61°W	S50W	—	N40°W	N64°W	24°W	24°W	"	— " —	— " —	J.J.	Observed under Favourable Circumstances
"	Sunset	"	"	S58°W	S65°W	N37°W	N61°W	24°W	24°W	"	— " —	— " —	J.J.	Very Good Sunset Bearing
26th	7-[illegible]am	45°01N	62°W	S65°W	"	N110°E	N92°E	18°W	23°W	5°E.	— " —	— " —	J.J.	Very Good bearing
"	7-44am	"	"	S75°W	S80°W	N112°E	N94°E	18°W	23°W	5°E	— " —	— " —	J.J.	" " "
"	8-45pm [illegible]	44°N	62½°W	S75°W	S85°W	N60°W	N80½°W	20.5°W	22½°W	2°E.	— " —	— " —	J.J.	Observed under Favourable conditions
"	7-6pm	44½°N	62½°W	S88°W	"	N45°W	N65°W	20°W	22°W	2°E	— " —	— " —	J.J.	Very Good Sunset Bearing
"	Sunset	"	"	S78°W	S81°W	N45°W	N62½°W	19½°W	22°W	2½°E.	— " —	— " —	J.J.	" " " "

Claimant's Exhibit M.

Msg Radio Willdomino 7/25

Nr 1 Wds 14 18th 8 AM GMT

Wilshipco New York.

Heading North Sydney Latitude forty three fifty two north Longitude forty seven fifty seven west

Beeby

XYZDEVCE

CLAIMANTS
EXHIBIT M.

Claimant's Exhibit M.

3301

(PHOTOSTAT)

3302

3303

3304

Claimant's Exhibit N.

(PHOTOSTAT)

3305

3306

No. 201. S. B. F. Co.—[illegible]-11-17

THE Claimants Exhibit N [illegible]

MARCONI WIRELESS TELEGRAPH COMPANY OF CANADA, LIMITED

MONTREAL

No. 1 Willdomino STATION July 21st 1920

Prefix XP Code — Words

CHARGES TO PAY.

Marconi Charge . . .		
Other Line Charge . .		
Delivery Charge . . .		
Total		

Office of Origin Brooklyn. Ny.

Service Instructions: Sable Island

Station sent to	Time received	By whom sent
XYZ.	12.23	

READ THE CONDITIONS PRINTED ON THE BACK OF FORM

To: Commander. SS Willdomino Sable Island formerely War Convoy now off Sydney.

Proceed Halifax report
Gueret Jacks and Co
for Bunkers

Wilshipco

CLAIMANTS EXHIBIT N.

Claimants Exhibit O

135

Rdo Willdomino oct 9/20 GMT

Nr1 Wds 11 21st 8 PM OK

Wilshipco New York

Eighty bunkers remaining arriving Sydney midnight ~~twenty~~ first

Captain

VCODEXYZ R OK

CLAIMANTS
EXHIBIT - O.

Claimant's Exhibit O.

3307

(PHOTOSTAT)

3308

3309

Claimant's Exhibit P.

3310

(PHOTOSTAT)

3311

3312

Claimants exhibit P ~~for identi~~

msg Radio Willdomino Oct 9/20 12.50

Nr 1. Wds 16 23rd. 8. PM. GMT

Wilshipco New York

Latitude forty five fifty north

Longitude fiftynine forty seven west

proceeding Halifax.

Captain

VCO DE XYZ
Wds 16
XYZ DE VCO R OK

XYZ DE VCO R OK
Ch

CLAIMANTS
EXHIBIT P.

msg Radio Willdomino
nr 1 wds 16 2.3rd 8PM

12.50
GMT
Receipt
given

Wilshipco New York
Latitude forty five fifty north
Longitude fifty nine forty seven west
proceeding Halifax.

Captain AR

XYZ DE VCO R

Ch. wds

CLAIMANTS
EXHIBIT Q.

Claimant's Exhibit Q.

3313

(PHOTOSTAT)

3314

3315

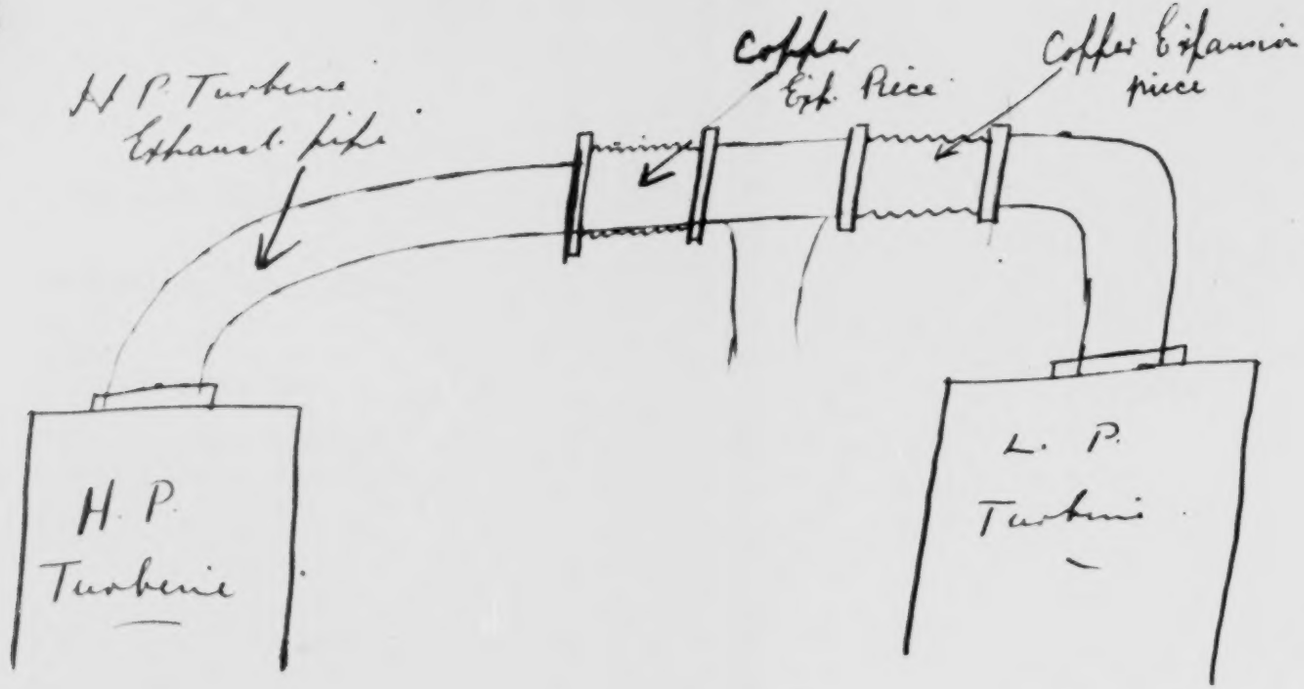
Claimant's Exhibit R.

3316

(PHOTOSTAT)

3317

3318



CLAIMANTS EXHIBIT-R.

Claimant's Exhibit S.

OCTOBER 16, 1920. CMB

* * *

ENGINEER'S LOG

S. S. S. S. WILLDOMINO
Single Screw Ship with (2) Geared Turbines

FROM May 1920 TO Aug. 1920

COPYRIGHT REGISTERED BY
ESPLEN & SONS, LTD., CONSULTING ENGINEERS,
31 JAMES STREET, LIVERPOOL

Published by W. W. Lea & Co., Liverpool

VOYAGE NO. 4

ENGINEER'S LOG S.S. Willdomino

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE After Strainer	BOILER STEAM PRESSURE Before Man'uvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Guage	VACUUM Kenoto Meter	BAROMETER
Noon—4 p.m.	3rd	175	165	436°			—	—	175	175	1¼	28½	—	—
4—8 p.m.	2nd	175	165	433°			—	—	175	175	1¼	29	—	—
8—12 p.m.	4th	175	165	440°			—	—	175	175	1¼	28½	—	—
12—4 a.m.	3rd	175	165	439°			—	—	175	175	1¼	28½	—	—
4—8 a.m.	2nd	175	165	440°			—	—	175	175	1¼	28½	—	—
8 a.m.—Noon	4th	175	165	440°			—	—	175	175	1¼	29	—	29-67

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	Air Pumps H P Thrust	Air Pumps L P	Filter	Feed to Boilers
Noon—4 p.m.	25	—	2½	—	114	92	96	84	48	86	—	127°	122°	115°	200°
4—8 p.m.	26	—	2½	—	114	94	94	86	48	85	—	130°	124°	118°	203°
8—12 p.m.	26	—	2½	—	114	94	120	82	46	86	—	130°	122°	115°	200°
12—4 a.m.	27	—	3	—	114	94	98	84	46	83	—	130°	122°	117°	205°
4—8 a.m.	27	—	3	—	114	94	94	84	48	83	—	129°	122°	104°	206°
8 a.m.—Noon	27	—	3	—	114	94	98	83	48	82	—	130°	122°	208°	206°

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.			81.6	145		—	—	480	—	33	2½	—	—
4—8 p.m.	COUNTER		78	145		—	—	480	—	34	2½	—	—
8—12 p.m.	SPINDLE		81.2	145		—	—	480	—	36	2½	—	—
12—4 a.m.			76.5	145		—	—	480	—	36	2½	—	—
4—8 a.m.	BROKEN		90	145		—	—	480	—	36	2½	—	—
8 a.m.—Noon			89	145		—	—	480	—	36	2½	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING ~~HEATING~~ MACHINERY	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	~~DISTILLER~~ ASH	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft
							H.P.&L.P. PINION TEMP. 125	12	hrs.	H 25	M 10	~~111 Bkts.~~ 78 lbs. 3.86 TONS				

FROM New York TOWARDS Norfolk Va.

WEATHER CONDITIONS	REMARKS
NOON—4 p.m. Left Erie Basin Std by 7-40 Half Ast 7-50 Various movements till Full Away	P.M. Date May 1st Sat. Vacuum rather poor, both Rodojets working
4—8 p.m. 10-19 AM. Coal on Board Arriving New York 289 TONS	Evaporator coils scaled Poor steam, all new firemen
8—12 p.m. Coal used in New York up to Friday Midnight 34½ TONS	
12—4 a.m. Coal used from midnight to 10-19 AM. 3 TONS	A.M. Evap 2 hours Date Ash 29 bkts at 3-45 A. M. May 2nd Sunday Engines / stopped 1 hr. 4 mins. to repair Gear casing Oil pipe Evap ash 22
4—8 a.m.	Counter spindle broken at 7-30 AM. Superheaters cleaned Evap 3½ hrs Ash 30 bkts
Moderate West'ly wind and smooth sea	No 1 P. & S. Bilge pumped out Eavp 3½ hrs. Ash 30 bkts.

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD											251	—					
DAYS CONSUMPTION	35	6	—	—	—	14	6	10	—	10	43	—					
CARRIED FORWARD	35	6	—	—	—	14	6	10	—	10	208	—					

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
24	6	88	11.4 274.7	10.29 248	10.5%	5 lbs.	Main condenser & Feed heater	1-3 lbs.

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. Willdomino

WATCH	ENGINEERS IN CHARGE	BOILER STEAM			STEAM PRESSURES							VACUUM		BAROMETER
		PRESSURE							EJECTORS					
		After Strainer	Before Man'uvre Valve	Temp°	H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	Forward	Aft	Gland Steam Press	Guage	Kenoto Meter	
Noon—4 p m														
4—8 p.m.														
8—12 p m.														
12—4 a.m.														
4—8 a m.														
8 a m.—Noon														

	OIL PRESSURES				OIL TEMPERATURES		TEMPERATURES								
												Air Pumps			
	Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	Cooler Inlet	Cooler Outlet	Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	Wet	Dry	Filter	Feed to Boilers
Noon—4 p m.															
4—8 p.m.															
8—12 p.m.															
12—4 a.m.															
4—8 a.m.															
8 a.m.—Noon															

	REVOLUTIONS					DOUBLE STROKES					AIR PRESSURE		
	MAIN SHAFT					FEED PUMP							
	Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p m.													
4—8 p.m.													
8—12 p m.													
12—4 a m.													
4—8 a.m.													
8 a m.—Noon													

CLEARANCES VERIFIED DAILY						SHAFT HORSE POWER	HOURS WORKING						DENSITY OF BOILERS	
Finger Piece Reading			Finger Piece Index				REFRIG MACHINERY	EVAPORATOR		ELECTRIC LIGHT		DISTILLER		
H P	I P	L P	H P	I P	L P			Port	Starbd	Port	Starbd		Port Fwd	
													Star Fwd	
													Port Aft	
													Star Aft	

FROM New York AT TOWARDS Hampton Roads

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. PILOT Date May 2nd Sunday Arriving stbd by 11-53 ahd slow 12-0 ahd Full 12-14 std by 2-27 F. W. E. 2.54 P. M. Anchored
4—8 p.m.	Engineers keeping Anchor Watch Port & Centre Boiler fires banked starbd boiler in use
8—12 p.m.	Joint on Auxiliary steam line remade
12—4 a.m.	A.M. Date Monday May 3rd Repairing electric cable leading to filter tank
4—8 a.m.	Joint made on filter tank top Condensate pump stop valve repacked Starbd Boiler Steam-gauge fitted in place
8 a.m.—NOON	Stripping heater drain pipes to renew bend Steering engine oil cups fitted top & bottom two oil pipes off gear casing sent for repair

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD																	
DAYS CONSUMPTION																	
CARRIED FORWARD																	

STEAMING TIME		Average R.P.M. Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Ship Per cent	Pressure	Where led to	Feed Heater Press

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO 4

ENGINEER'S LOG S.S. "Wildomino"

WATCH	ENGINEERS in CHARGE	BOILER STEAM PRESSURE After Strainer	BOILER STEAM PRESSURE Before Manœuvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press.	VACUUM Guage	VACUUM Kenoto Meter	BAROMETER
Noon–4 p.m.					Monday May 3rd									
4–8 p.m.														
8–12 p.m.		4 Copper oil pipes sent ashore for renewal												
12–4 a.m.		Counter sent ashore to have new spindle made												
4–8 a.m.		& catch repaired												
8 a.m.–Noon		Main Thrust Keep being jointed												

	OIL PRESSURES Pump Discharge	OIL PRESSURES Cooler Outlet	OIL PRESSURES Bearings Mean	OIL PRESSURES Main Thrust	OIL TEMPERATURES Cooler Inlet	OIL TEMPERATURES Cooler Outlet	TEMPERATURES Eng Room	TEMPERATURES Bilge hold	TEMPERATURES Sea	TEMPERATURES Dash	TEMPERATURES L.P. Exhaust Steam	TEMPERATURES Air Pumps Wet	TEMPERATURES Air Pumps Dry	TEMPERATURES Filter	TEMPERATURES Feed to Boilers
Noon–4 p.m.		Firemen working coal from tween-decks &													
4–8 p.m.		cleaning engine-room													
8–12 p.m.															
12–4 a.m.					Tuesday May 4th										
4–8 a.m.															
8 a.m.–Noon															

	REVOLUTIONS MAIN SHAFT Counter	REVOLUTIONS MAIN SHAFT Per Watch	REVOLUTIONS MAIN SHAFT Per Min	REVOLUTIONS Main Circg. Pump	REVOLUTIONS Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	DOUBLE STROKES FEED PUMP Per Watch	DOUBLE STROKES FEED PUMP Per Hour	DOUBLE STROKES Air Pump per Min	DOUBLE STROKES Oil Pump per Min	AIR PRESSURE At For Casing	AIR PRESSURE At Ash Pits	AIR PRESSURE At Furnaces
Noon–4 p.m.		Watches kept											
4–8 p.m.		Evaporator opened up and hood secured											
8–12 p.m.		" scaled and door jointed											
12–4 a.m.		Main thrust Keep lifted and jointed											
4–8 a.m.		Grinding in Drain Valves on Main Steam pipe											
8 a.m.–Noon		Examining all Drain Valves below platform											

CLEARANCES VERIFIED DAILY Finger Place Reading HP	IP	LP	Finger Place Index HP	IP	LP	SHAFT HORSE POWER

HOURS WORKING REFRIG MACHINERY	EVAPORATOR Port	EVAPORATOR Starbd	ELECTRIC LIGHT Port	ELECTRIC LIGHT Starbd	DISTILLER

DENSITY OF BOILERS	
Port Fwd	
Star Fwd	
Port Aft	
Star Aft	

FROM at Norfolk TOWARDS

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Pumping out all ballast tanks & peaks changed over to centre boiler, fires drawn
4–8 p.m.	on centre boiler Firemen cleaning E room tank top
8–12 p.m.	Wednesday May 5th
12–4 a.m.	A.M. Date Fitting up heater drain pipe Main drain tank door taken off & Oil pipes Exam.
4–8 a.m. 2nd Engr 2½ hrs 3rd " 4 " 4th " 3½ " 5th " 2½ "	Overhauling radojets steam strainers New Annular nozzle fitted in same At 3-0 PM. Stay tube burst in Stard Smoke box, Port Blr
8 a.m.—NOON	Safety valves eased after fires had been drawn stopped and washer fitted in tube by engineers Fires set away 10-30 A. M. & Steam raised

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD																	
DAYS CONSUMPTION																	
CARRIED FORWARD																	

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE After Strainer	BOILER STEAM PRESSURE Before Man'uvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Guage	VACUUM Kenoto Meter	BAROMETER
Noon—4 p.m.		Boilers												
4—8 p.m.														
8—12 p.m.														
12—4 a.m.														
4—8 a.m.	3rd													
8 a.m.—Noon	2nd 4th	175	165	440°	134	92	—	—	175	175	1¼	29½	—	29.90

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Ditch	L.P. Exhaust Steam	Air Pumps Wet	Air Pumps Dry	Filter	Feed to Boilers
Noon—4 p.m.												—	—		
4—8 p.m.															
8—12 p.m.															
12—4 a.m.												H.P.	L.P.		
4—8 a.m.												THRUST			
8 a.m.—Noon	27	—	3	—	115	96	106	90	50	92	—	135	122	115	206

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnace
Noon—4 p.m.													
4—8 p.m.													
8—12 p.m.													
12—4 a.m.													
4—8 a.m.													
8 a.m.—Noon	23610	8610	82	120		—	—	480	—	40	2½	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING REFRIG MACHINERY	EVAPORATOR Port	EVAPORATOR Starbd	ELECTRIC LIGHT Port	ELECTRIC LIGHT Starbd	DISTILLER	DENSITY OF BOILERS
.042 +¼	—	⅛ F.					H.P.&L.P. PINION TEMP. 126°	—		1¾ hrs.		—	Port Fwd
													Star Fwd
													Port Aft
													Star Aft

FROM Norfolk Va TOWARDS Marseille

WEATHER CONDITIONS	REMARKS
NOON—4 p.m. Coal used from arrival in Hampton Rd to Wed Midnight	P.M. Date May 5th Oil pipes being rejointed. Ash hoist repaired and counter fitted up
4—8 p.m. Tons Sunday May 2nd 2½ Monday " 3rd 4 Tuesday " 4th 4 Wednesday " 5th 4	1 Barrel cylinder oil arrived 1 Breast Brace Oil pipes tested
8—12 p.m. 14½ Coal used from 12-0 PM. to 10-15 AM. 6½ TONS	Steamed order for 6-0 AM.
12—4 a.m. Received Bunkers 1490	A.M. Date Thursday May 6th Turbines warmed through and turn taken
4—8 a.m. 187 in Bunkers 1677 TONS	Leaving Std by 7-0 Slow Ast 7-8 Stop 7-10 S. Ast. 7-12 Full Ahd 7-15 Half 7-15½ Full Ahd 7-16 Slow Ahd 7-20 Full Ahd 7-21 Stop 7-58 Full Ahd 8-0 AM.
8 a.m.—NOON	Superheater tubes blown Std by 10.12 Stop 10-16 Full Ahd 10-22 PILOT LEFT

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	35	6	—	—	—	14	6	10	—	10	1677	—
DAYS CONSUMPTION	3	10	—	—	—	—	—	—	—	—		3 10
CARRIED FORWARD	38	16	—	—	—	14	6	10	—	10	1673	10

OILS	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min.	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Ship Per cent	Pressure	Where led to	Feed Heater Press
1	45	82	10.6	10.2	3.7%	5 lbs.	Main Condenser & Feed Heater	1-3 lbs.
		8610	18.5	18				

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM			STEAM PRESSURES							VACUUM		BAROMETER
		PRESSURE			H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS		Gland Steam Press.	Guage	Kenyon Meter	
		After Strainer	Before Man'uvre Valve	Temp.					Forward	Aft				
Noon–4 p.m.	3rd	175	165	440°	120	82	—	—	175	175	1¼	28½	—	—
4–8 p.m.	2nd	175	165	438°	125	86	—	—	175	175	1¼	28½	—	—
8–12 p.m.	4th	175	165	442°	130	90	—	—	175	175	1¼	28½	—	—
12–4 a.m.	3rd	175	165	450°	110	72	—	—	175	175	1¼	28½	—	—
4–8 a.m.	2nd	175	165	450°	120	80	—	—	175	175	1¼	28½	—	—
8 a.m.–Noon	4th	175	165	440°	125	86	—	—	175	175	1¼	28½	—	—

	OIL PRESSURES				OIL TEMPERATURES		TEMPERATURES								
	Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	Cooler Inlet	Cooler Outlet	Eng. Room	Stoke hold	Sea	Disch.	L.P. Exhaust Steam	Air Pumps. Hot	Air Pumps. Cap.	Filter	Feed to Boilers
Noon–4 p.m.												H.P.&L.P. Thrust			
4–8 p.m.	30	—	3	—	108	90	95	83	52	78	—	124	117	117	207
	29	—	3	—	114	98	99	85	53	80	—	126	120	120	208
8–12 p.m.	29	—	3	—	110	92	106	83	52	84	—	128	119	116	208
12–4 a.m.	30	—	3	—	109	90	100	85	52	83	—	—	—	116	206
4–8 a.m.	30	—	3	—	109	90	105	83	54	84	—	—	—	118	206
8 a.m.–Noon	28	—	3	—	106	90	108	86	50	80	—	130	120	116	206

	REVOLUTIONS					DOUBLE STROKES					AIR PRESSURE		
	MAIN SHAFT			Main Circ. Pump	Oil Cooler Pump	FEED PUMP			Air Pump per Min.	Oil Pump per Min.	At Fan Casing	At Air Pipe	At Purifiers
	Counter	For Watch	Per Min.			Counter	For Watch	For Hour					
Noon–4 p.m.	42030	18420	75	120		—	—	480	—	40	2½	—	—
4–8 p.m.	60900	18870	77	120				480	—	40	2½	—	—
8–12 p.m.	79820	19820	80.5	120				480	—	40	2½	—	—
12–4 a.m.	96820	17000	70.8	120				480	—	40	2½	—	—
4–8 a.m.	14840	17920	74.6	120		—	—	480	—	40	2½	—	—
8 a.m.–Noon	31800	17020	77	120		—	—	480	—	40	2½	—	—

CLEARANCES VERIFIED DAILY						SHAFT HORSE POWER	HOURS WORKING					DENSITY OF BOILERS	
Finger Piece Reading			Finger Piece Index				REFRIG MACHINERY	EVAPORATOR		ELECTRIC LIGHT		DISTILLER	
HP	IP	LP	HP	IP	LP			Port	Starbd	Port	Starbd		
.042	—	⅛					H.P.&L.P. PINION TEMP. 118°	16 hrs.		24 hrs.		A8H 149 Bkts. 5.25 Ton	Port Fwd
+⅛		F.											Star Fwd
													Port Aft
													Star Aft

FROM Norfolk, Va. TOWARDS Marseilles

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date May 6th Thursday
	Steam very variable, firemen doing badly
	Evap. 1 hr Ash 22 bkts
4—8 p.m.	Caught 2 firemen opium smoking
	Evap 2½ hrs Ash 29 bkts
8—12 p.m.	Both air pumps working to maintain vacuum
Average weight of	
Ash—79 lbs.	Evap 3½ hrs Ash 26 bkts
12—4 a.m.	A.M. Date May 7th Friday
	Steam very bad, especially when cleaning fires
	Evap. 2½ Ash 25 bkts
4—8 a.m.	Water on deck, 1 hr.
	Evap 3 hrs Ash 24 bkts
8 a.m.—NOON Light N.	Water on deck 2 hours
Easterly breeze	
Smooth sea	Evap 3½ hrs Ash 25 bkts

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	CO. ZA	CYLINDER
BROUGHT FORWARD	38	16	—	—	—	14	6	10	—	10	1673	10					
DAYS CONSUMPTION	36	16	—	—	—	14	6	10	—	10	44	10					
CARRIED FORWARD	75	12	—	—	1	8	13	—	1	—	1629	—					

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		76	9.8	7.45			Main condenser	
22	44	108250	232.5	187	24.4%	5 lbs.	& Feed Heater	2 lbs.

CHIEF ENGINEER R.G.DONALDSON

VOYAGE NO 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS in CHARGE	BOILER STEAM PRESSURE			STEAM PRESSURES							VACUUM		BAROMETER
		After ~~Strainer~~ Bkrs	Before Man'uvre Valve	Temp°	H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	Guage	Kenote Meter	
Noon–4 p.m.	3rd	175	165	448°	125	86	—	—	175	—	1¼	27½	—	—
4–8 p.m.	2nd	175	165	442°	122	84	—	—	175	—	1¼	27½	—	—
8–12 p.m.	4th	175	165	438°	128	89	—	—	175	—	1¼	28	—	—
12–4 a.m.	3rd	175	165	440°	120	84	—	—	175	—	1¼	27	—	—
4–8 a.m.	2nd	175	165	446°	120	78	—	—	175	—	1¼	12	—	—
8 a.m.–Noon	4th	175	165	442°	120	78	—	—	175	—	1¼	15	—	29·98

	OIL PRESSURES				OIL TEMPERATURES		TEMPERATURES								
	Pump Discharge	Cooler Outlet	Bearings Main	Main Thrust	Cooler Inlet	Cooler Outlet	Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	Air Pumps Wet ~~Thrust~~ Dry		Filter	Fed to Boilers
Noon–4 p.m.	28	—	3	—	124	108	112	89	72	102	—	134	124	130	204
4–8 p.m.	30	—	3	—	124	108	116	88	70	100	—	128	120	128	212
8–12 p.m.	28	—	3	—	126	106	112	89	66	102	—	130	122	122	206
12–4 a.m.	27	—	3	—	121	105	110	90	74	99	—	130	122	128	207
4–8 a.m.	30	—	3	—	122	105	110	90	70	102	—	130	120	130	209
8 a.m.–Noon	28	—	3	—	120	102	108	94	68	100	—	132	120	126	209

	REVOLUTIONS					DOUBLE STROKES					AIR PRESSURE		
	MAIN SHAFT Counter	MAIN SHAFT Per Watch	MAIN SHAFT Per Min	Main Circs Pump	Oil Cooler Pump	FEED PUMP Counter	FEED PUMP Per Watch	FEED PUMP Per Hour	Air Pump per Min	Oil Pump per Min	Air Fan Casing	Air Ash Pits	Air Funnel
Noon–4 p.m.	50420	18560	77.3	120		—	—	480	—	40	2½	—	—
4–8 p.m.	68890	18470	76.9	120		—	—	480	—	40	2½	—	—
8–12 p.m.	84360	15440	79.9	120		—	—	480	—	40	2½	—	—
12–4 a.m.	00360	16000	65.1	120		—	—	480	—	40	2½	—	—
4–8 a.m.	17950	17600	73.2	120		—	—	480	—	40	2½	—	—
8 a.m.–Noon	32780	14830	65.6	120		—	—	480	—	40	2½	—	—

CLEARANCES VERIFIED DAILY						SHAFT HORSE POWER	HOURS WORKING					DENSITY OF BOILERS
Finger Piece Reading			Finger Piece Index				~~H.P. SHAFT~~ PINION TEMP.	EVAPORATOR Port	EVAPORATOR Starbd	ELECTRIC LIGHT Port	ELECTRIC LIGHT Starbd	DISTILLER ASH
HP	IP	LP	HP	IP	LP							Port Fwd
.043 + ⅛	—	⅛ F.						16½		24	hrs.	180 Bkts. — 6.34 Tons
												Star Fwd
												Port Aft
												Star Aft

FROM Norfolk, Va. TOWARDS Marseilles

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date May 7th Friday Water on deck 2 hours Evap 3 hrs. Ash 30 Bkts.
4—8 p.m.	Evap 2½ hrs. Ash 31 bkts.
8—12 p.m. Stopped 58 MINS	Stopped 11-10 H. P. Turbine ford bearing oil pipe broken. Old pipe fitted 12 gallons oil lost Evap 3½ hrs Ash 28 bkts
12—4 a.m.	A.M. Date May 8th Saturday ~~Full Ahd 12-10 AM. Poor steam & variable vacuum~~ Evap 3½ hrs Ash 32 bkts
4—8 a.m.	Sudden drop in Vacuum 7-0 AM. All engineers searching for case Evap 1½ hrs Ash 33 bkts
8 a.m.—NOON Fresh breeze; mod. sea fine & clear	Radojets overalled All drain & leak off pipes tested for leaks Evap 2 hrs Ash 29 bkts

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	75	12	—	—	1	8	13	—	1	—	1629						
DAYS CONSUMPTION	34	6	—	—	—	14	6	10	—	10	42						
CARRIED FORWARD	109	18	—	—	2	2	19	10	1	10	1587						

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Ship Per cent	Pressure	Where led to	Feed Heater Press
~~70~~			~~9.6~~	~~9.6~~				
22	44	100900	218.2	220	——	5 lbs.	~~Main Condr &~~ Feed heater	1½ lbs.

CHIEF ENGINEER R. G. DONALDSON

4

VOYAGE NO.

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS CHARGE	BOILER STEAM PRESSURE After Strainer	BOILER STEAM PRESSURE Before Manl'uvre Valves	BOILER STEAM Temp°	STEAM PRESSURES H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Gauge	VACUUM Kenoto Meter	BAROMETER
Noon–4 p.m.	3rd	Boiler												
4–8 p.m.	2nd	165	156	440	117	76	—	—	165	165	1¼	[illegible]	—	—
8–12 p.m.	4th	175	165	439	117	76	—	—	175	175	1¼	25	—	—
12–4 a.m.	3rd	170	160	445	116	74	—	—	170	170	1¼	26	—	—
4–8 a.m.	2nd	165	155	443	120	76	—	—	165	165	1¼	26	—	—
8 a.m.–Noon	4th	175	165	445	120	78	—	—	175	175	1¼	26	—	29.71

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Gea	Disch	L.P. Exhaust Steam	Air Pumps Wet	Air Pumps Dry	Filter	Feed to Boilers
												H.P. Thrust	L.P.		
Noon–4 p.m.	30	—	3	—	114	96	108	91	68	80	—	120	115	118	204
4–8 p.m.	30	—	3	—	116	100	105	90	63	78	—	120	116	116	202
8–12 p.m.	28	—	3	—	114	90	108	90	62	79	—	120	115	118	201
12–4 a.m.	30	—	3	—	118	98	104	87	58	78	—	122	119	118	206
4–8 a.m.	30	—	3	—	117	100	108	91	62	80	—	126	118	120	208
8 a.m.–Noon	28	—	3	—	118	98	112	90	58	84	—	125	118	118	206

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE Air Feed Centre 40	Air Auxl Pumps	Air Purifiers
Noon–4 p.m.	47010	14230	59.2	120		—	—	480	—	40	2½	—	—
4–8 p.m.	63090	16080	67	120		—	—	480	—	38	3	—	—
8–12 p.m.	80490	17400	72.5	120		—	—	480	—	40	3	—	—
12–4 a.m.	97610	17120	71.1	120		—	—	480	—	40	2½	—	—
4–8 a.m.	14060	17450	72.7	120		—	—	480	—	38	2½	—	—
8 a.m.–Noon	30480	16420	73	120		—	—	480	—	40	2½	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING REFRIG MACHINERY	EVAPORATOR Port	EVAPORATOR Starbd	ELECTRIC LIGHT Port	ELECTRIC LIGHT Starbd	DISTILLER	DENSITY OF BOILERS
.043 +⅛	—	⅛F					H.P.&L.P. Pinion Temp. 125°	20 hrs.		24 hrs.		ANH 178 Bkts. 6.27 Tons	Port Fwd Star Fwd Port Aft Star Aft

FROM Norfolk, Va. TOWARDS Marseilles

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date May 8th Saturday ~~Searching for air leaks and testing all~~ pipes & valves Evap 3½ hrs Ash 31
4—8 p.m.	~~5.30 PM. Found copper expansion piece of H. P.~~ ~~Astern line of exhaust cracked all round~~ Evap 2½ hrs Ash 31
8—12 p.m.	Pipe wrapped with canvas and Marline Clips made for two flanges on Main exhaust pipe Vap 3¾ Ash 26
12—4 a.m.	A.M. Date May 9 Sunday Firemen doing badly with steam Evap 3¾ hrs Ash 30 bkts
4—8 a.m.	Poor steam & vacuum not perfect Super- heater tubes blown Evap 3½ hours Ash 30 bkts
8 a.m.—NOON Mod Southerly wind and sea	Vacuum improved a little Evap 3½ hrs Ash 30 bkts

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	109	18	—	—	3	2	19	10	1	10	1587	
DAYS CONSUMPTION	36	6	—	—	—	14	6	10	—	10	44	
CARRIED FORWARD	146	4	—	—	2	16	26	—	2	—	1543	

OILS

TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Ford Heater Press
		~~68.5~~	~~8.9~~	~~6.51~~				
						4 lbs.	Main condr feed heater	1½ lbs.
23	48	9870	211.8	155	26.9%			

CHIEF ENGINEER R. G. DONALDSON

4

VOYAGE NO._____

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE After Strainer Boilers	BOILER STEAM PRESSURE Before Man'uvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Gauge	VACUUM Kenelo Meter	BAROMETER
Noon–4 p.m.	3rd	170	160	420°	Various		—	—	170	170	1¼	25	—	—
4–8 p.m.	2nd	170	160	433°	Pressures		—	—	170	170	1¼	24	—	—
8–12 p.m.	4th	170	160	440°	Accord-		—	—	170	170	1¼	24	—	—
12–4 a.m.	3rd	170	160	441°	ing to		—	—	170	170	1¼	23½	—	—
4–8 a.m.	2nd	170	160	440°	Steam		—	—	170	170	1¼	24	—	—
8 a.m.–Noon	4th	170	160	438°			—	—	170	170	1¼	23½	—	28.80

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng. Room	Stoke hold	Sea	Dieth	L.P. Exhaust Steam	Air Pumps H.P.	Air Pumps L.P.	Filter	Feed to Boilers
													Thrust		
Noon–4 p.m.	27	—	3	—	116	96	108	90	72	90	—	122	118	126	210
4–8 p.m.	30	—	3	—	100	92	109	90	71	80	—	124	115	140	210
8–12 p.m.	27	—	3	—	106	92	110	90	70	88	—	115	110	140	210
12–4 a.m.	27	—	3	—	108	94	112	88	67	85	—	116	110	135	210
4–8 a.m.	28	—	3	—	118	100	109	92	68	78	—	120	116	135	210
8 a.m.–Noon	28	—	3	—	110	100	110	90	66	84	—	122	116	132	210

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circ. Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Air Pipe	At Furnaces
Noon–4 p.m.	45190	14710	61.2	120		—	—	480	—	40	2½	—	—
4–8 p.m.	57230	12040	50.1	120		—	—	480	—	42	2½	—	—
8–12 p.m.	68830	11600	48.3	120		—	—	480	—	40	2½	—	—
12–4 a.m.	81330	12500	51.1	120		—	—	480	—	40	2½	—	—
4–8 a.m.	93360	14030	58.4	120		—	—	480	—	42	2½	—	—
8 a.m.–Noon	10030	14670	61.3	120		—	—	480	—	40	2½	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING RECIP. ENGINES H.P.&L.P.	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	DISTILLER ASH	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft
.043 +⅛	—	⅛F.					Pinion Temp. 124°	17½ hrs.		24 hrs.		169 Bkts. 5.91 Ton				

FROM Norfolk, Va. TOWARDS Marseilles

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date May 9th
	Evap 3¾ hrs Ash 32 bkts
4–8 p.m.	Slowed down, bad weather
	8 hours, 30 mins
	Evap 3½ hrs Ash 24 bkts
8–12 p.m.	Steering engine steam pipe cracked
	in tunnel, clip fitted
	Evap 4 hours Ash 25
12–4 a.m.	A.M. Date May 10th Monday
	~~Air pump being overhauled~~
	Evap 3¾ Ash 29
4–8 a.m. Heavy Seas	Port, Centre & Stbd Boiler Tubes blown
Heavy Gales	Superheaters cleaned
	Evap 2½ hrs Ash 31 bkts
8 a.m.—NOON	Evaporator coils scaled
	2nd & 3rd Screwing up joints & wrapping
2 hours each	pipes to improve vacuum

COAL CONSUMPTION													OILS				
	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts					
BROUGHT FORWARD	~~46~~	~~4~~	—	—	~~2~~	~~16~~	~~26~~	—	~~2~~	—	~~1543~~						
DAYS CONSUMPTION	~~30~~	~~6~~	—	—	—	~~14~~	~~6~~	~~10~~	—	~~10~~	~~38~~						
CARRIED FORWARD	~~76~~	~~10~~	—	—	~~3~~	~~10~~	~~32~~	~~10~~	~~2~~	~~10~~	~~1505~~						

STEAMING TIME		DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins	Average Revs Per Min	By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
23	49	55.6 / ~~79550~~	7.2 / ~~171.4~~	5.4 / ~~130~~	~~25%~~	5 lbs.	Main Condr & feed heater	~~1½ lbs.~~

CHIEF ENGINEER ~~R. G. DONALDSON~~

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE: Before Boilers	BOILER STEAM PRESSURE: Before Man'uvre Valve	BOILER STEAM: Temp°	STEAM PRESSURES: H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS: Forward	EJECTORS: Aft	Gland Steam Press	VACUUM: Guage	VACUUM: Kenoto Meter	BAROMETER
Noon–4 p m	3rd	170	160	440	100	60	—	—	170	170	1¼	23	—	—
4–8 p m	2nd	175	165	438	115	73	—	—	175	175	1¼	23	—	—
8–12 p m	4th	175	165	440	116	75	—	—	175	175	1¼	23	—	—
12–4 a m	3rd	170	160	444	113	70	—	—	170	170	1¼	23	—	—
4–8 a m	2nd	175	175	440	102	63	—	—	175	175	1¼	23	—	—
8 a m.–Noon	4th	170	160	438	113	70	—	—	170	170	1¼	23	—	29–96

	OIL PRESSURES: Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES: Cooler Inlet	Cooler Outlet	TEMPERATURES: Eng Room	Stoke hold	Sea	Disch	LP Exhaust Steam	Air Pump H.P.	Air Pump L.P.	Filter	Feed to Boilers
												Thrust			
Noon–4 p.m.	27	—	3	—	116	96	107	91	62	84	—	127	120	127	204
4–8 p.m.	27	—	3	—	120	98	118	93	62	86	—	127	120	125	207
8–12 p.m.	27	—	3	—	125	98	110	95	60	88	—	129	120	123	208
12–4 a.m.	27	—	3	—	130	116	112	93	68	90	—	132	122	124	210
4–8 a.m.	27	—	3	—	126	114	112	90	66	96	—	130	122	126	208
8 a.m.–Noon	27	—	3	—	125	116	118	94	64	99	—	130	125	123	208

	REVOLUTIONS: MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES: FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE: At Fan Casing	At Ash Pits	At Furnaces
Noon–4 p m	24740	14710	61.3	120		—	—	480	—	40	2½	—	—
4–8 p.m.	41880	17140	71.4	120		—	—	480	—	40	2½	—	—
8–12 p m	57790	15190	72.3	120		—	—	480	—	40	2½	—	—
12–4 a m	74490	16700	69.6	120		—	—	480	—	40	2½	—	—
4–8 a.m.	89850	15360	64	120		—	—	480	—	40	2½	—	—
8 a m.–Noon	05550	15700	70.8	120		—	—	480	—	40	2½	—	—

CLEARANCES VERIFIED DAILY: Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING: MAIN MACHINERY	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	Ash	DENSITY OF BOILERS: Port Fwd	Star Fwd	Port Aft	Star Aft
.043 +⅛	—	⅛F					H. P. & L. P. Pinion Temp. 125°	22 hrs.		24 hrs.		168 Bkts. 5.88 Tons				

FROM Norfolk, Va. TOWARDS Marseilles

WEATHER CONDITIONS	REMARKS
NOON–4 p.m.	P.M. Date May 10 Monday Poor steam and vacuum Evap 3¾ hrs Ash 30 bkts
4–8 p.m.	Poor steam & vacuum No 6 Port and Starbd Bilge pumped out Vap 3½ hrs. Ash 31 bkts
8–12 p.m.	Radojets being adjusted Condensate Pump Impeller Gland Packed No better vacuum results Vap 3¾ Ash 29
12–4 a.m.	A.M. Date May 11 Tuesday Steam pipe expansion pieces being covered with
4–8 a.m. Calm, smooth sea	red lead putty & wrapped (Evap 3¾ Ash 31 in canvas. After peak pumped out Evap 3½ hrs ash 29 bkts
8 a.m.–NOON 3rd engr 2 hours 2nd " 2½ "	New carbons fitted in No 2 dynamo Again wraping broken expansion pipe Evap 3½ Ash 28. 1 Barrel oil put in Gravity Tank

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	176	10	—	—	3	10	32	10	2	10	1505						
DAYS CONSUMPTION	36	6	—	—	—	14	6	10	—	10	44						
CARRIED FORWARD	212	16	—	—	4	4	39	—	3	—	1461						

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Bilge	Bilge Per cent	Pressure	Where led to	Feed Heater Press
		66.5	8.6	7.53				
						5 lb.	Main condenser Feed Heater	1½ lbs.
23	45	94800	204.2	179	12.7%	CHIEF ENGINEER R. G. DONALDSON		

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE XXX Boilers	Before Man'uvre Valve	Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	Aft	Gland Steam Press	VACUUM Guage	Kenoto Meter	BAROMETER
Noon—4 p.m.	3rd	175	165	448	102	66	—	—	175	175	1¼	23	—	—
4—8 p.m.	2nd	175	165	452	105	70	—	—	175	175	1¼	23	—	—
8—12 p.m.	4th	175	165	452	104	68	—	—	175	175	1¼	23	—	—
12—4 a.m.	3rd	175	165	456	102	66	—	—	175	175	1¼	23	—	—
4—8 a.m.	2nd	175	165	458	100	64	—	—	175	175	1¼	23	—	—
8 a.m.—Noon	4th	175	165	456	100	60	—	—	175	175	1¼	23	—	29-69

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Dish	L P Exhaust Steam	H.P. L.P. XXXXX Thrust Wet	Dry	Filter	Feed to Boilers
Noon—4 p.m.	27	—	3	—	126	116	118	95	70	90	—	132	122	112	206
4—8 p.m.	27	—	3	—	126	116	114	95	68	90	—	132	122	122	214
8—12 p.m.	27	—	3	—	129	120	110	95	68	95	—	135	124	120	210
12—4 a.m.	27	—	3	—	129	118	110	93	69	93	—	137	122	118	200
4—8 a.m.	27	—	3	—	124	116	116	93	66	94	—	128	122	118	206
8 a.m.—Noon	27	—	3	—	128	112	116	93	68	99	—	—	—	115	205

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	21060	15510	64.6	120		—	—	480	—	40	2½	—	—
4—8 p.m.	37420	16360	68.1	120		—	—	480	—	40	2½	—	—
8—12 p.m.	53440	16020	67	120		—	—	480	—	40	2½	—	—
12—4 a.m.	69320	15880	66.1	120		—	—	480	—	40	2½	—	—
4—8 a.m.	84960	15660	65.1	120		—	—	480	—	40	2½	—	—
8 a.m.—Noon	89820	4870	59	120		—	—	—	—	40	2½	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING XXX H. P. Pinion Temp.	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	XXXX Ash	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft
.043 +⅛	—	⅛F.					126°	12½ hrs.		24 hrs.		180 Bkts. 6.34 Tons				

FROM Norfolk, Va. TOWARDS Marseilles

WEATHER CONDITIONS	REMARKS
NOON–4 p.m.	P.M. Date May 11th Tuesday
	Scupper holes drilled in deck 4th Engr 2 hrs
	Evap 3½ hrs Ash 32 bkts Poor vacuum
4–8 p.m.	Both Radojets working
	Superheater tubes blown
	Evap 3½ hrs Ash 29 bkts
8–12 p.m.	Poor vacuum
	Evap 3½ hrs Ash 28 bkts
12–4 a.m. Light, southerly wind, mod. sea	A.M. Date ~~May 12th Wed.~~
	Blank flanges being made
4–8 a.m. Stopped 2 hrs 20 mins. 2nd Engr 3 hrs. 3rd " 3 hrs	~~Evap 3¾ hrs Ash 31 bkts~~ ~~Blank flanges being made for exhaust pipe (H. P. Astern) Evap 3½ hrs Ash 30 bkts~~
8–12 NOON Fires drawn & steam blown off to rejoint stopper washer	Turbines stopped. Expansion pipe taken out & Pipes blanked off. Impossible to go astern
	Port boiler tube leaking badly in starbd smoke box

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	212	16	—	—	4	4	39	—	3	—	1461	
DAYS CONSUMPTION	33	6	—	—	—	14	6	10	—	10	41	
CARRIED FORWARD	246	2	—	—	4	18	45	10	3	10	1420	

OILS	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engine	By Log	Slip Per cent	Pressure	Where led to	Feed Heater Press
		~~73.4~~	~~9.5~~	~~9.5~~			~~Main condenser~~	
		—	—	—		5 lbs.	Feed heater	1½ lbs.
21	23	94300	203.	204	—			

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM: Pressure: Aux. Boilers	BOILER STEAM: Pressure: Before Man'uvre Valve	BOILER STEAM: Temp°	STEAM PRESSURES: H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS: Forward	EJECTORS: Aft	Gland Steam Press	VACUUM: Guage	VACUUM: Kenolo Meter	BAROMETER
Noon—4 p.m.	3rd	160	150	430	Various		—	—	160	—	1¼	Vari-	—	—
4—8 p.m.	2nd	160	150	433	Pressures		—	—	160	—	1¼	ous	—	—
8—12 p.m.	4th	160	150	432	Accord-		—	—	160	—	1¼	Va-	—	—
12—4 a.m.	3rd	160	150	428	ing to		—	—	160	—	1¼	cu-	—	—
4—8 a.m.	2nd	160	150	412	Steam		—	—	160	—	1¼	ums	—	—
8 a.m.—Noon	4th	160	150	430			—	—	160	—	1¼		—	29-83

	OIL PRESSURES: Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES: Cooler Inlet	Cooler Outlet	TEMPERATURES: Eng Room	Stoke hold	Sea	Dinch	L.P. Exhaust Steam	H.P. L.P. Air Pumps: Wet	Dry	Filter	Feed to Boilers
Noon—4 p.m.	28	—	3	—	104	90	103	84	67	80	—	108	104	93	190
4—8 p.m.	28	—	3	—	104	90	110	86	68	83	—	108	106	96	190
8—12 p.m.	28	—	3	—	108	90	110	86	68	86	—	116	110	96	190
12—4 a.m.	28	—	3	—	94	84	99	86	62	70	—	100	98	96	190
4—8 a.m.	28	—	3	—	104	90	102	90	66	82	—	100	98	94	190
8 a.m.—Noon	28	—	3	—	102	88	106	85	65	88	—	102	100	96	190

	REVOLUTIONS: Main Shaft: Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES: Feed Pump: Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE: At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	98740	8550	41			—	—	400	—	40	2½	—	—
4—8 p.m.	11590	12850	53.1	Half		—	—	400	—	40	2½	—	—
8—12 p.m.	24070	12480	52			—	—	400	—	40	2½	—	—
12—4 a.m.	32850	8780	36.5	Speed		—	—	400	—	40	2½	—	—
4—8 a.m.	44360	11510	56.9			—	—	400	—	40	2½	—	—
8 a.m.—Noon	55450	12090	52.8			—	—	400	—	40	2½	—	—

CLEARANCES VERIFIED DAILY: Finger Piece Reading: HP	IP	LP	Finger Piece Index: HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING: ~~Reverse Machinery~~ H.P. & L.P. Pinion Temp.	EVAPORATOR: Port	Starbd	ELECTRIC LIGHT: Port	Starbd	~~Distillers~~ Ash	DENSITY OF BOILERS: Port Fwd	Star Fwd	Port Aft	Star Aft
.043 +⅛	—	⅛F					125°		—		24 hrs.	180. Bkts. 6.34 Tons				

FROM Norfolk, Va. TOWARDS Marseilles

WEATHER CONDITIONS	REMARKS
NOON-4th Engr 6½ hrs 5th Engr 4½ hrs 2nd " 3 "	P.M. Date May 12th Wed Steaming on 2 boilers, new stopper rod made & new washer. Back end baled out
4–8 p.m. stopped 35 mins	All smoke boxes cleaned. Evaporator coils scaled. Support inside broken. Old screws drilled out and new ones fitted. Boiler run up
8–12 p.m. Light Northerly winds, mod swell	from sea. Fires set away 10-10 PM Fitting annular nozzle on after radojet
12–4 a.m. 3rd engr 1½ hrs 2nd engr 3 hrs	A.M. Date May 13th Thurs. Steam being raised on Port Boiler
4–8 a.m.	5-0 AM. Tube burst again. Steam blown off & fires drawn. Engr. Cleaning salt from back end, before jointing new ⅞ Rod, made & wrought iron Washer
8 a.m.—NOON	

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	246	2	—	—	4	18	45	10	3	10	1420	
DAYS CONSUMPTION	26	6	—	—	—	14	6	10	—	10	34	
CARRIED FORWARD	272	8	—	—	5	12	52	—	4	—	1386	

OILS

TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Ship Per cent	Pressure	Where led to	Feed Heater Press
		47.6	6.1	6.94		4 lb.	Main & Aux Condenser heater	1 lb.
23	11	60260	144.4	161		CHIEF ENGINEER R. G. DONALDSON		

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VOYAGE NO.

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE: Water Strainer	BOILER STEAM PRESSURE: Before Man'uvre Valve	BOILER STEAM PRESSURE: Temp°	STEAM PRESSURES: H P Ahead Inlet	STEAM PRESSURES: H P Second Expansion	STEAM PRESSURES: H P Exhaust	STEAM PRESSURES: L P Inlet	STEAM PRESSURES: EJECTORS Forward	STEAM PRESSURES: EJECTORS Aft	STEAM PRESSURES: Gland Steam Press	VACUUM: Guage	VACUUM: Kenoto Meter	BAROMETER
		XXX Boilers												
Noon—4 p.m.	3rd	160	150	430	Various		—	—	160	—	1¼	Va-	—	—
4—8 p.m.	2nd	160	150	428	"		—	—	160	—	1¼	ri-	—	—
8—12 p.m.	4th	160	150	428	"		—	—	160	—	1¼	ous	—	—
12—4 a.m.	3rd	170	160	438	110	72	—	—	170	—	1¼	27	—	—
4—8 a.m.	2nd	170	160	440	120	80	—	—	170	—	1¼	27½	—	—
8 a.m.—Noon	4th	170	160	442	120	80	—	—	170	—	1¼	28	—	29-87

	OIL PRESSURES: Pump Discharge	OIL PRESSURES: Cooler Outlet	OIL PRESSURES: Bearings Mean	OIL PRESSURES: Main Thrust	OIL TEMPERATURES: Cooler Inlet	OIL TEMPERATURES: Cooler Outlet	TEMPERATURES: Eng Room	TEMPERATURES: Stoke hold	TEMPERATURES: Sea	TEMPERATURES: Disch	TEMPERATURES: L P Exhaust Steam	H.P. L.P. XXXXX Wet Thrust	H.P. L.P. XXXXX Dry	Filter	Feed to Boilers
Noon—4 p.m.	27	—	2½	—	108	96	110	87	64	84	—	108	102	102	192
4—8 p.m.	29	—	3	—	119	98	108	88	66	82	—	120	110	100	190
8—12 p.m.	28	—	3	—	120	98	113	89	66	88	—	122	112	100	190
12—4 a.m.	26	—	3	—	130	108	110	85	66	98	—	134	124	110	200
4—8 a.m.	29	—	3	—	128	108	112	86	66	98	—	130	122	110	204
8 a.m.—Noon	29	—	3	—	130	109	112	88	65	100	—	132	122	112	204

	REVOLUTIONS: MAIN SHAFT Counter	MAIN SHAFT Per Watch	MAIN SHAFT Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES: FEED PUMP Counter	FEED PUMP Per Watch	FEED PUMP Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE: At Fan Casing	AIR PRESSURE: At Ash Pits	AIR PRESSURE: At Furnaces
Noon—4 p.m.	64240	8790	36	120		—	—	—	—	36	2¾	—	—
4—8 p.m.	77120	12880	53.6	120		—	—	—	—	38	2¾	—	—
8—12 p.m.	91890	14770	61.5	120		—	—	—	—	38	2¾	—	—
12—4 a.m.	08800	16910	70.4	120		—	—	480	—	40	2½	—	—
4—8 a.m.	26710	17910	74.6	120		—	—	480	—	38	2½	—	—
8 a.m.—Noon	43290	16580	74.6	120		—	—	480	—	40	2¼	—	—

CLEARANCES VERIFIED DAILY: Finger Place Reading HP	IP	LP	Finger Place Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING: XXX Refrig. Pinion Temp.	EVAPORATOR Port	EVAPORATOR Starbd	ELECTRIC LIGHT Port	ELECTRIC LIGHT Starbd	XXXX Cutiller Ash	DENSITY OF BOILERS
043												180 Bkts.	Port Fwd
+⅛	—	⅛F.					122°	16 hrs.		24 hrs		6.34 Ton	Star Fwd
													Port Aft
													Star Aft

FROM Norfolk, Va. TOWARDS Marseilles

WEATHER CONDITIONS	REMARKS
~~2nd Engr 4 hrs~~ NOON—4 p.m.	P.M. Date May 13th
4th " 5½ "	Stopper finished, Boiler pumped up from sea
3rd " 1½ "	& fires set away 5-30 PM
~~13 hrs~~ 2 mins at reduced speed	New Top brass fitted in Condensate Pump & impeller gland packed. Steam being raised Port Blr. Radojet exhausting to Aux Condenser
8–12 p.m.	Steam being raised on P. Boiler
Moderate	
12–4 a.m.	A.M. Date May 14th
southerly wind & sea	All Boilers coupled up 1-0 AM.
4–8 a.m.	Port Boiler smoke boxes cleaned out Centre " " " " "
8 a.m.—NOON	Evaporator coils scaled and steam gauge
2nd engr 3 hours	repaired, Dynamo commutator done up and
3rd " 2½ "	carbons fitted

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	272	8	—	—	5	12	52	—	4	—	1380	
BYE CONSUMPTION	29	6	—	—	—	14	6	10	—	10	37	
CARRIED FORWARD	301	14	—	—	6	6	58	10	4	10	1349	

OILS

TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Log	Slip Per cent	Pressure	Where led to	Feed Water Temp
23	46	87840	187.7	164	17.7%	5 lbs	Main & Aux Condr & feed heater	1½ lbs

R. G. DONALDSON
CHIEF ENGINEER

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE XXX Boilers	BOILER STEAM PRESSURE Before Man'uvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Guage	VACUUM Kenoto Meter	BAROMETER
Noon–4 p m	3rd	175	165	448	107	71	—	—	175	—	1¼	28	—	—
4–8 p m	2nd	175	165	445	117	76	—	—	175	—	1¼	28	—	—
8–12 p m.	4th	175	165	446	122	84	—	—	175	—	1¼	28	—	—
12–4 a.m.	3rd	175	165	445	110	70	—	—	175	—	1¼	27½	—	—
4–8 a m.	2nd	175	165	446	100	65	—	—	175	—	1¼	Var.	—	—
8 a m.–Noon	4th	175	165	440	120	80	—	—	175	—	1¼	28	—	29–98

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	H P L P XXXXX Air Pumps Wet	Dry	Filter	Feed to Boilers
												Thrust			
Noon–4 p m.	27	—	3	—	128	112	115	91	66	90	—	133	124	106	202
4–8 p.m.	27	—	3	—	127	110	112	90	65	88	—	133	125	108	204
8–12 p.m.	26	—	3	—	130	112	114	95	65	92	—	132	125	116	210
12–4 a.m.	29	—	3	—	126	114	113	90	65	90	—	135	124	114	202
4–8 a.m.	29	—	3	—	127	114	113	92	64	90	—	130	122	114	200
8 a.m.–Noon	29	—	3	—	128	116	113	93	64	90	—	132	124	114	204

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon–4 p m.	60070	16780	69.9	120		—	—	480	—	38	2½	—	—
4–8 p.m.	77510	17440	72.6	120		—	—	480	—	38	2½	—	—
8–12 p m	95500	18790	76.6	120		—	—	480	—	40	2½	—	—
12–4 a m.	12370	16870	70.3	120		—	—	480	—	38	2½	—	—
4–8 a.m.	28330	15960	66.5	120		—	—	480	—	40	2½	—	—
8 a m.–Noon	44790	16460	74	120		—	—	480	—	38	2½	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING XXX H. P. & L. P. Pinion Temp.	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	XXXX DISTILLER Ash	DENSITY OF BOILERS
.043												169 Bkts.	Port Fwd
+⅛	—	⅛F					128°	17½ hrs.		24 hrs.		5.91 Ton	Star Fwd
													Port Aft
													Star Aft

FROM Norfolk TOWARDS Marseilles

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date May 14th
	Evaporator coils being scaled
	~~Evap 1 hour Ash 32 bkts~~
4—8 p.m.	Aux condenser pump working slowly
	Stard Boiler tubes cleaned
	Evap 3½ Ash 31 bkts
8—12 p.m.	Boiler tube leaking a little
	Evap 3½ Ash 33 bkts
12—4 a.m.	A.M. Date May 15th
	Evap 3½ Ash 31 bkts
4—8 a.m.	
Moderate S.W. Winds & Sea	~~Superheater tubes cleaned~~
	Evap 2 hours Ash 30 bkts
8 a.m.—NOON	Ash buckets being repaired
	Evap 3½ ash 32 bkts

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	301	14	—	—	6	6	58	10	4	10	1349	
DAYS CONSUMPTION	36	6	—	—	—	14	6	10	—	10	44	
CARRIED FORWARD	338	—	—	—	7	—	65	—	5	—	1305	

OILS

TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Skip	Slip Per cent	Pressure	Where led to	Feed Heater Press
		71.8	9.38	8.52		5 lbs.	Main Aux Condr Feed Heater	1½ lb.
23	43	102300	220.5	202	8.6%	CHIEF ENGINEER R. G. DONALDSON		

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VOYAGE NO._____

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE XXX Boilers	Before Man'uvre Valve	Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	Aft	Gland Steam Press	VACUUM Guage	Kenoto Meter	BAROMETER
Noon–4 p m	3rd	175	165	448	117	76	—	—	175	—	1¼	28	—	—
4–8 p.m.	2nd	175	165	450	120	80	—	—	175	—	1¼	28	—	—
8–12 p.m.	4th	175	165	447	127	88	—	—	175	—	1¼	28	—	—
12–4 a.m.	3rd	175	165	447	120	80	—	—	175	—	1¼	28	—	—
4–8 a.m.	2nd	175	165	450	125	86	—	—	175	—	1¼	28	—	—
8 a.m.–Noon	4th	175	165	452	120	82	—	—	175	—	1¼	28	—	30-02

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	H.P. L.P. XXXXX Thrust Wet	Dry	Filter	Feed to Boilers
Noon–4 p m.	27	—	3	—	130	114	113	90	68	89	—	135	124	112	206
4–8 p.m.	28	—	3	—	130	106	110	93	68	90	—	134	124	112	206
8–12 p.m.	27	—	3	—	132	112	115	94	65	92	—	135	125	108	210
12–4 a.m.	26	—	3	—	132	116	113	93	68	90	—	137	128	112	206
4–8 a.m.	28	—	3	—	128	112	110	92	66	90	—	128	122	115	208
8 a.m.–Noon	27	—	3	—	134	112	112	94	65	90	—	136	126	114	206

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon–4 p m.	62150	17360	72	120		—	—	480	—	38	2½	—	—
4–8 p.m.	80250	18100	74	120		—	—	480	—	38	2½	—	—
8–12 p m.	98650	18400	78.3	120		—	—	480	—	38	2½	—	—
12–4 a.m.	16620	17970	74.8	120		—	—	480	—	40	2½	—	—
4–8 a.m.	35290	18670	77.5	120		—	—	480	—	38	2½	—	—
8 a.m.–Noon	51970	16680	75.8	120		—	—	480	—	38	2½	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	XXX REFRIG MACHINERY H. P. L. P. Pinion Temp.	HOURS WORKING EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	XXXX DISTILLER Ash	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft
.043 +⅛	—	⅛F					125°	18	hrs.	24	hrs.	189 Bkts. 6.66 Ton				

FROM Norfolk Va TOWARDS Marseilles

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date May 15th One Barrel Oil put in gravity tank Evap 3¼ Ash 32
4—8 p.m.	Superheater tubes blown Evap 3 hrs Ash 31
8—12 p.m.	 Evap 3½ Ash 32
12—4 a.m.	A.M. Date May 16th Evap 3 hrs Ash 32
4—8 a.m. Moderate S. W. Wind & sea	 Evaporator opened up for scaling Evap 2¾ Ash 29
8 a.m.—NOON	Evaporator coils scaled Distiller tried Evap 2 hrs Ash 32

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	338	—	—	—	7	—	65	—	5	—	1305	
DAYS CONSUMPTION	36	6	—	—	—	14	6	10		10	44	
CARRIED FORWARD	374	6	—	—	7	14	71	10	5	10	1261	

OILS	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD					
DAYS CONSUMPTION					
CARRIED FORWARD					

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		75.4	9.8	9.26		5 lbs.	Main & Aux Condr & Feed Heater	1½ lbs.
23	41	107180	232	220	6.1%	CHIEF ENGINEER R. G. DONALDSON		

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE XXX Boilers	Before Man'uvre Valve	Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	Aft	Gland Steam Press	VACUUM Guage	Kenoto Meter	BAROMETER
Noon—4 p.m.	4th	175	165	442	120	78	—	—	175	—	1¼	28	—	—
4—8 p.m.	3rd	175	165	448	117	76	—	—	175	—	1¼	28	—	—
8—12 p.m.	2nd	175	165	446	120	80	—	—	175	—	1¼	28	—	—
12—4 a.m.	4th	175	160	445	100	65	—	—	175	—	1¼	28	—	—
4—8 a.m.	2nd	175	165	446	120	80	—	—	175	—	1¼	28	—	—
8 a.m.—Noon	4th	175	165	447	120	80	—	—	175	—	1¼	28	—	30-05

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	H.P.L.P. XXXXX Thrust Wet	Dry	Filter	Feed to Boilers
Noon—4 p.m.	26	—	2½	—	133	117	112	92	66	90	—	139	130	110	204
4—8 p.m.	28	—	3	—	120	116	110	88	66	90	—	134	126	110	206
8—12 p.m.	26	—	2½	—	132	117	108	84	66	90	—	137	129	110	206
12—4 a.m.	26	—	2½	—	128	115	106	92	65	89	—	134	124	112	206
4—8 a.m.	26	—	3	—	124	104	101	90	66	90	—	136	130	110	206
8 a.m.—Noon	26	—	3	—	130	110	112	94	65	92	—	135	128	114	204

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	69710	17740	73.8	120		—	—	480	—	40	2½	—	—
4—8 p.m.	87160	17450	72.7	120		—	—	480	—	40	2½	—	—
8—12 p.m.	04890	17730	74	120		—	—	480	—	40	2½	—	—
12—4 a.m.	20870	15980	66.5	120		—	—	480	—	40	2½	—	—
4—8 a.m.	38770	17900	74.5	120		—	—	480	—	40	2½	—	—
8 a.m.—Noon	54060	16290	74	120		—	—	480	—	40	2½	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	XXX H. P. Pinion Temp.	HOURS WORKING REFRIG MACHINERY	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	XXXX DISTILLER Ash	DENSITY OF BOILERS Port Fwd	
.043 +⅛	—	⅛F					130°			20½	24	hrs.	196 Bkts. 6.91 Ton	Star Fwd	
														Port Aft	
														Star Aft	

FROM Norfolk TOWARDS Marseilles

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date May 16th
	Joints being made on distilling plant
	Evap 3 Ash 34
4—8 p.m.	
	Superheater tubes blown
	Evap 4 Ash 33
8—12 p.m.	
	Evap 3½ Ash 32
12—4 a.m.	A.M. Date May 17th
Light W.S.W. wind & following	Stopped 12 min to repair drain pipe on circulating pump Evap 3 Ash 34
4—8 a.m. sea	Port boiler tubes cleaned
	Evap 3½ Ash 31 bkts
8 a.m.—NOON	Stard boiler tubes cleaned
	No 2 dynamo refused to generate
	Evap 3½ hrs Ash 32 bkts

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	374	6	—	—	7	14	71	10	5	10	1261						
DAYS CONSUMPTION	36	6	—	—	—	14	6	10	—	10	44						
CARRIED FORWARD	410	12	—	—	8	8	78	—	6	—	1217						

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		73.1	9.5	9.32		5 lbs.	Main & Aux Condr ~~Feed heater~~	1½ lbs
23	30	103090	223.2	219	2.1%	CHIEF ENGINEER R. G. DONALDSON		

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE Boilers	Before Man'uvre Valve	Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	Aft	Gland Steam Press	VACUUM Guage	Kenoto Meter	BAROMETER
Noon—4 p.m.	3rd	175	165	450	120	80	—	—	175	—	1¼	28	—	—
4—8 p.m.	2nd	175	165	444	135	96	—	—	175	—	1¼	28½	—	—
8—12 p.m.	4th	170	160	443	117	76	—	—	170	—	1¼	28	—	—
12—4 a.m.	3rd	170	160	448	117	78	—	—	170	—	1¼	28	—	—
4—8 a.m.	2nd	175	165	447	127	88	—	—	175	—	1¼	28	—	—
8 a.m.—Noon	4th	175	165	445	117	76	—	—	175	—	1¼	28	—30"	-20

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	H.P. L.P. Thrust Wet	Dry	Filter	Feed to Boilers
Noon—4 p.m.	26	—	3	—	124	108	112	88	69	92	—	130	120	110	205
4—8 p.m.	27	—	3	—	125	109	119	104	65	92	—	130	120	112	205
8—12 p.m.	27	—	3	—	125	108	118	90	62	94	—	130	122	114	208
12—4 a.m.	27	—	3	—	126	110	116	88	64	90	—	132	122	114	206
4—8 a.m.	28	—	3	—	125	110	116	88	62	92	—	130	122	114	206
8 a.m.—Noon	27	—	3	—	125	110	112	88	62	94	—	130	124	110	205

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	71840	17780	74.5	120		—	—	480	—	40	2½	—	—
4—8 p.m.	91240	20400	85	120		—	—	480	—	42	2½	—	—
8—12 p.m.	08730	17490	72.8	120		—	—	480	—	40	2½	—	—
12—4 a.m.	26150	17420	72.2	120		—	—	480	—	42	2½	—	—
4—8 a.m.	45060	18910	78.7	120		—	—	480	—	40	2½	—	—
8 a.m.—Noon	60990	15930	72.4	120		—	—	480	—	40	2½	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING Bearing Machinery	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	DISTILLER	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft
.043 +⅛	—	⅛F.					125°	18½ hrs.		24 hrs.		195 Bkts. 6.9 Ton				

H. P. Pinion Temp.

FROM Norfolk Va TOWARDS Marseilles

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date May 17th
	Centre Boiler Tubes & Superheaters cleaned & winches overalled
4—8 p.m.	Evap 3 hrs Ash 34 bkts
	Evap 3½ hrs Ash 33 bkts
8—12 p.m.	No. 2 dynamo tried, no current generated
	Evap 3½ Ash 32 bkts
12—4 a.m. Moderate Easterly wind smooth sea	A.M. Date May 18th
	Evap 3½ hrs Ash 35 bkts
4—8 a.m.	Superheater tubes blown
	Winches overhauled
	Evap 3¼ hrs Ash 31 bkts
8 a.m.—NOON 3rd Eng 2½ hrs	Evaporator coils scaled
	E. R. Light being repaired
	Evap 1 hr Ash 30 bkts

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	410	12	—	—	8	8	78	—	6	—	1211						
DAYS CONSUMPTION	36	6	—	—	—	14	6	10	—	10	44						
CARRIED FORWARD	446	18	—	—	9	2	84	10	6	10	1173						

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Log	Slip Per cent	Pressure	Where led to	Feed Heater Press
		75.9	9.8	8.73		5 lbs.	Main & Aux Condr. & Heater	1¼ lbs.
23	42	107930	232.2	207	11.2%	CHIEF ENGINEER R. G. DONALDSON		

4

VOYAGE NO.

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE Water Strainer	Before Man'uvre Valve	Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	Aft	Gland Steam Press	VACUUM Guage	Kenoto Meter	BAROMETER
	XXX Boilers													
Noon—4 p.m.	3rd	170	160	446	107	71	—	—	170	—	1¼	27½	—	—
4—8 p.m.	2nd	175	165	450	125	86	—	—	175	—	1¼	28	—	—
8—12 p.m.	4th	175	165	448	122	84	—	—	175	—	1¼	28½	—	—
12—4 a.m.	3rd	175	165	456	122	84	—	—	175	—	1¼	28½	—	—
4—8 a.m.	2nd	170	160	450	120	80	—	—	170	—	1¼	28½	—	—
8 a.m.—Noon	4th	175	165	458	120	78	—	—	175	—	1¼	28½	—30	-18

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	H.P. L.P. XXXXX Air Pumps Wet	Dry	Filter	Feed to Boilers
												Thrust			
Noon—4 p.m.	28	—	3	—	126	108	114	94	66	90	—	132	122	114	206
4—8 p.m.	28	—	3	—	127	108	118	98	67	89	—	135	124	109	208
8—12 p.m.	27	—	3	—	130	110	112	92	65	92	—	134	122	112	206
12—4 a.m.	27	—	3	—	126	108	114	89	64	90	—	132	120	112	206
4—8 a.m.	27	—	3	—	124	105	115	90	65	90	—	132	122	110	202
8 a.m.—Noon	27	—	3	—	126	104	114	90	63	92	—	130	122	112	206

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	77780	16790	69.9	120		—	—	480	—	40	2½	—	—
4—8 p.m.	96430	18650	77.7	120		—	—	480	—	42	2½	—	—
8—12 p.m.	14730	18300	76.2	120		—	—	480	—	40	2½	—	—
12—4 a.m.	33160	18430	76.7	120		—	—	480	—	40	2½	—	—
4—8 a.m.	51150	17990	74.9	120		—	—	480	—	42	2½	—	—
8 a.m.—Noon	67260	16110	73.2	120		—	—	480	—	40	2½	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	XXX H.P. & L.P. Pinion Temp.	HOURS WORKING EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	XXXX DISTILLER Ash	DENSITY OF BOILERS
.043 +⅛	—	⅛F.					124°	21 hrs.		24 hrs.		195 Bkts. 6.9 Ton	Port Fwd / Star Fwd / Port Aft / Star Aft

FROM Norfolk Va TOWARDS Marseilles

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date May 18th
	Evap 3½ Ash 33 bkts
4—8 p.m.	Superheater tubes cleaned
	Evap 3½ Ash 35 bkts
8—12 p.m.	
	Evap 3½ Ash 31 bkts
12—4 a.m. Moderate S. Easterly wind & sea	A.M. Date May 19th
	Evap 3½ Ash 33
4—8 a.m.	Superheater tubes cleaned
	Evap 3½ Ash 34
8 a.m.—NOON	Winch eccentric straps adjusted
	Evap 3½ Ash 29

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	446	18	—	—	9	2	84	10	6	10	1173	
DAYS CONSUMPTION	36	6	—	—		14	6	10	—	10	44	
CARRIED FORWARD	483	4	—	—	9	16	91	—	7	—	1129	

OILS	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Skip	Slip Per cent	Pressure	Where led to	Feed Heater Press
		74.7	9.7	8.88		5 lbs.	Main & Aux. Condr. & Heater	1½ lbs.
23	42	106270	229.8	210	9.2%	CHIEF ENGINEER R G. DONALDSON		

4

VOYAGE NO.

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE XXXX Boilers	Before Man'uvre Valve	Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	Aft	Gland Steam Press	VACUUM Guage	Kenoto Meter	BAROMETER
Noon—4 p.m.	3rd	170	160	452	116	74	—	—	170	—	1¼	28½	—	—
4—8 p.m.	2nd	175	165	458	125	86	—	—	175	—	1¼	28½	—	—
8—12 p.m.	4th	175	165	448	120	80	—	—	175	—	1¼	28½	—	—
12—4 a.m.	3rd	170	160	450	117	76	—	—	170	—	1¼	28½	—	—
4—8 a.m.	2nd	175	165	446	120	78	—	—	175	—	1¼	28½	—	—
8 a.m.—Noon	4th	175	165	440	117	76	—	—	175	—	1¼	28½	—30"—16	

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	H.P. L.P. XXXXX Thrust Wet	Dry	Filter	Feed to Boilers
Noon—4 p.m.	27	—	3	—	124	104	114	87	65	88	—	132	122	108	199
4—8 p.m.	27	—	3	—	126	104	115	86	66	87	—	135	125	108	202
8—12 p.m.	27	—	3	—	125	105	114	90	65	90	—	135	122	108	206
12—4 a.m.	27	—	3	—	124	106	112	90	66	91	—	132	122	112	205
4—8 a.m.	28	—	3	—	124	106	112	90	66	90	—	130	122	114	206
8 a.m.—Noon	28	—	3	—	126	105	112	82	65	90	—	130	122	114	206

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	84380	17120	71.3	120		—	—	480	—	40	2¾	—	—
4—8 p.m.	02960	18580	77.4	120		—	—	480	—	40	2½	—	—
8—12 p.m.	20920	17960	74.8	120		—	—	480	—	40	2½	—	—
12—4 a.m.	38410	17490	72.8	120		—	—	480	—	40	2¾	—	—
4—8 a.m.	56110	17700	73.8	120		—	—	480	—	40	2½	—	—
8 a.m.—Noon	72050	15950	72.1	120		—	—	480	—	40	2½	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	XXXX H. P. & L. P. Pinion Temp.	HOURS WORKING EVAPORATOR Port	Starbd	ELECTRIC L'GHT Port	Starbd	XXXX DISTILLER Ash	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft
.043 +⅛	—	⅛F.					125°	16½ hrs.		24 hrs.		189 Bkts. 6.66 Ton				

FROM Norfolk Va TOWARDS Marseilles

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date May 19th Winches being overhauled Evap 3 hours Ash 36 Superheater tubes cleaned
4—8 p.m.	Condensate pump continually stopping Evap 3½ hrs Ash 31 Condensate pump stopped, New brasses
8—12 p.m.	fitted and rotor adjusted Evap 3½ hrs Ash 29
0—4 a.m. Gentle N.E. Wind, smooth sea	A.M. Date May 20th Evap 3¼ Ash 32
4—8 a.m. 35d Engr 4 hrs	Evaporator coils scaled Weir pump piston gland repacked For'd feed pump working
8 A.M.—NOON Evap 3 hrs Ash 61 bkts	Small fire in bunker Evaporator boxed up

COAL CONSUMPTION	MAIN ENGINES		REFRIG M/CHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	CO.EX	CYLINDER
BROUGHT FORWARD	483	4	—	—	9	16	91	—	7	—	1129						
DAYS CONSUMPTION	36	6	—	—	—	14	6	10	—	10	44						
CARRIED FORWARD	519	10	—	—	10	10	97	10	7	10	1085						

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		73.6	9.5	8.82		5 lbs.	Main Condr. & Feed Heater	1½ lbs.
23	43	104800	225.3	209	7.3%			

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE XXX Boilers	Before Man'uvre Valve	Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	Aft	Gland Steam Press	VACUUM Guage	Kenoto Meter	BAROMETER
Noon—4 p.m.	3rd	175	165	447	120	78	—	—	175	—	1¼	28½	—	—
4—8 p.m.	2nd	170	160	450	117	76	—	—	170	—	1¼	28½	—	—
8—12 p.m.	4th	170	160	450	110	72	—	—	170	—	1¼	28½	—	—
12—4 a.m.	3rd	170	160	452	110	72	—	—	170	—	1¼	28½	—	—
4—8 a.m.	2nd	170	160	448	120	78	—	—	170	—	1¼	28½	—	—
8 a.m.—Noon	4th	170	160	450	110	72	—	—	170	—	1¼	28½	—30°	—07

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	H.P. L.P. XXXXX Thrust Wet	Dry	Filter	Feed to Boilers
Noon—4 p.m.	27	—	3	—	125	107	114	87	63	92	—	133	123	110	204
4—8 p.m.	28	—	3	—	124	106	112	90	64	90	—	130	124	112	204
8—12 p.m.	27	—	3	—	120	105	112	88	62	94	—	130	123	112	208
12—4 a.m.	27	—	3	—	120	104	106	80	62	90	—	130	120	114	208
4—8 a.m.	28	—	3	—	120	102	100	84	62	89	—	128	120	110	206
8 a.m.—Noon	27	—	3	—	120	108	100	86	62	90	—	130	120	114	208

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	89600	17550	73.5	120		—	—	480	—	40	2½	—	—
4—8 p.m.	06960	17360	72.3	120		—	—	480	—	40	2½	—	—
8—12 p.m.	23790	16830	70.1	120		—	—	480	—	40	2½	—	—
12—4 a.m.	40740	16950	70.6	120		—	—	480	—	40	2½	—	—
4—8 a.m.	58240	17500	72.9	120		—	—	480	—	40	2½	—	—
8 a.m.—Noon	74120	15880	70.8	120		—	—	480	—	40	2½	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	XXXX REFRIG MACHINERY H. P. Pinion Temp.	HOURS WORKING EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	XXXX DISTILLER Ash	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft
.043												195 Bkts.				
+⅛	—	⅛F.					126°	21 hrs.		24 hrs.		6.9 Ton				

FROM Norfolk Va TOWARDS Marseilles

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date May 20th Winches being overalled Evap 3¼ hrs Ash 33 bkts
4–8 p.m.	~~Superheater tubes cleaned~~ ~~Poor steam~~ ~~Evap 4 hrs Ash 34 bkts~~ ~~Poor steam~~
8–12 p.m.	Evap 3¼ hrs Ash 31 bkts
12–4 a.m. Moderate N.E. Wind & Sea	A.M. Date May 21st Evap 3¼ hrs Ash 35 bkts Port boiler tubes & superheater cleaned
4–8 a.m.	~~Centre boiler tubes & heaters cleaned~~ ~~Poor steam~~
8 a.m.—NOON	Dynamo taken adrift & examined Winches being overhauled Evap 3½ hours Ash 30 bkts

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	519	10	—	—	10	10	97	10	7	10	1085	
DAYS CONSUMPTION	33	6	—	—		14	6	10	—	10	44	
CARRIED FORWARD	556	16	—	—	11	4	104	—	8	—	1041	

OILS

TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Ford Heater Press
		71.6	9.3	7.74		5 lbs.	Main & Aux. Condr. & Heater	1½ lbs.
23	45	102070	220.8	184	17.2%			

CHIEF ENGINEER R. G. DONALDSON

4

VOYAGE NO._____

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE: Steamer Boilers	Before Man'uvre Valve	Temp°	STEAM PRESSURES: H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS: Forward	Aft	Gland Steam Press	VACUUM: Guage	Kenelo Meter	BAROMETER
Noon–4 p.m.	3rd	165	155	450	100	66	—	—	165	—	1¼	28½	—	—
4–8 p.m.	2nd	175	165	460	110	72	—	—	175	—	1¼	28½	—	—
8–12 p.m.	4th	175	165	458	110	72	—	—	175	—	1¼	28½	—	—
12–4 a.m.	3rd	165	155	446	100	66	—	—	165	—	1¼	28½	—	—
4–8 a.m.	2nd	175	165	456	117	76	—	—	175	—	1¼	28½	—	—
8 a.m.–Noon	4th	170	160	460	117	76	—	—	170	—	1¼	28½	—29"	-75

	OIL PRESSURES: Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES: Cooler Inlet	Cooler Outlet	TEMPERATURES: Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	H P L P Air Pumps Wet	Dry	Filter	Feed to Boilers
												Thrust			
Noon–4 p.m.	27	—	3	—	118	106	107	78	62	88	—	130	120	114	206
4–8 p.m.	28	—	3	—	120	104	110	93	62	90	—	130	122	114	205
8–12 p.m.	27	—	3	—	118	106	110	79	62	90	—	130	120	116	208
12–4 a.m.	27	—	3	—	118	102	108	78	62	90	—	128	118	115	208
4–8 a.m.	27	—	3	—	116	100	108	90	62	92	—	128	118	115	208
8 a.m.–Noon	27	—	3	—	118	102	108	88	62	94	—	129	118	114	205

	REVOLUTIONS: MAIN SHAFT: Counter	Per Watch	Per Min	Main Circ Pump	Oil Cooler Pump	DOUBLE STROKES: FEED PUMP: Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE: At Fan Casing	At Ash Pits	At Furnaces
Noon–4 p.m.	89740	15620	65	120		—	—	400	—	40	2½	—	—
4–8 p.m.	06680	16940	70.5	120		—	—	480	—	40	2½	—	—
8–12 p.m.	23680	17000	70.8	120		—	—	480	—	40	2½	—	—
12–4 a.m.	39630	15950	66.4	120		—	—	400	—	40	2½	—	—
4–8 a.m.	56890	17260	71.9	120		—	—	480	—	40	2½	—	—
8 a.m.–Noon	72390	15500	72	120		—	—	480	—	40	2½	—	—

CLEARANCES VERIFIED DAILY: Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING: ENGINES DISCHARGED	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	DISTILLER	DENSITY OF BOILERS
.043							H. P. & D. P. Pinion Temp.					181 Bkts.	Port Fwd
+⅛	—	⅛F.					125°	20	hrs.	24	hrs.	6.34 Ton	Star Fwd
												Ash	Port Aft
													Star Aft

FROM Norfolk Va TOWARDS Marseilles

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date May 21st
4th Engr. 2 hrs	~~Dynamo No. 2 being overhauled~~
	Evap 3½ Ash 29 bkts
4—8 p.m.	Star'd boiler tubes & superheater cleaned
	Evap 3¾ Ash 30 bkts
8—12 p.m.	
	Evap 3¾ Ash 32 bkts
12—4 a.m. Moderate N	A.M. Date May 22nd
East'ly Gale	
Heavy beam sea	Evap 3¾ Ash 31 bkts
4—8 a.m.	Evaporator coils scaled
	Superheater tubes cleaned
	Evap 1 hr Ash 32
8 a.m.—NOON	No. 2 Armature taken adrift, commutator
2nd Engr. 2½ hrs.	field magnets examined
3rd " 2½ "	Evap 4 hrs Ash 30

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	CO.ZA	CYLINDER
BROUGHT FORWARD	555	16	—	—	11	4	104	—	8	—	1041						
DAYS CONSUMPTION	36	6	—	—	—	14	6	10	—	10	44						
CARRIED FORWARD	592	2	—	—	11	18	110	10	8	10	997						

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		68.8	8.9	6.3		5 lbs.	Main & Aux. Condr. ~~Feed Heater~~	1½ lbs.
23	48	98270	211.8	150	29.2%	CHIEF ENGINEER R. G. DONALDSON		

VOYAGE NO 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE XXX Boilers	Before Man'uvre Valve	Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	Aft	Gland Steam Press	VACUUM Guage	Kenoto Meter	BAROMETER
Noon—4 p.m.	3rd	170	160	450	116	74	—	—	170	—	1¼	29	—	—
4—8 p.m.	2nd	175	165	460	120	78	—	—	175	—	1¼	29	—	—
8—12 p.m.	4th	170	160	452	116	74	—	—	170	—	1¼	29	—	—
12—4 a.m.	3rd	170	160	453	116	74	—	—	170	—	1¼	29	—	—
4—8 a.m.	2nd	175	165	458	116	74	—	—	175	—	1¼	29	—	—
8 a.m.—Noon	4th	175	165	454	120	80	—	—	175	—	1¼	29	—29	—64

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	LP Exhaust Steam	H.P. L.P. XXXXX Thrust Wet	Dry	Filter	Feed to Boilers
Noon—4 p.m.	27	—	3	—	118	100	110	84	63	92	—	130	120	110	207
4—8 p.m.	27	—	3	—	118	100	118	86	63	92	—	130	120	114	206
8—12 p.m.	27	—	3	—	118	98	112	82	63	92	—	130	120	114	206
12—4 a.m.	27	—	3	—	118	100	112	80	63	92	—	130	120	114	206
4—8 a.m.	27	—	3	—	118	100	114	84	64	92	—	130	120	110	201
8 a.m.—Noon	27	—	3	—	118	100	110	82	63	92	—	130	120	114	206

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	89500	17110	71.2	120		—	—	480	—	40	2¾	—	—
4—8 p.m.	07050	17550	73.1	120		—	—	480	—	40	2½	—	—
8—12 p.m.	24260	17210	71.7	120		—	—	480	—	40	2½	—	—
12—4 a.m.	41600	17340	71.9	120		—	—	480	—	40	2½	—	—
4—8 a.m.	58750	17150	71.4	120		—	—	480	—	40	2½	—	—
8 a.m.—Noon	76040	17290	74.5	120		—	—	480	—	40	2½	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	XXXX H. P. Pinion Temp.	HOURS WORKING XXXX REFRIG MACHINERY	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	DISTILLER	DENSITY OF BOILERS
.043 +⅛	—	⅛F.					125°	24	hrs.	24	hrs.	194 Bkts. 6.9 Ton	Port Fwd / Star Fwd / Port Aft / Star Aft

FROM Norfolk Va TOWARDS Marseilles

WEATHER CONDITIONS	REMARKS
NOON–4 p.m. 4th Engr. 2½ hrs.	P.M. Date May 22nd No. 2 dynamo armature again adrift Evap 4 hrs Ash 32 bkts
4–8 p.m.	For'd Oil pu'p glands packed Evap 4 hrs Ash 36 bkts
8–12 p.m.	 Evap 4 hrs Ash 34 bkts
12–4 a.m. Gentle N.N.E. Wind & sea	A.M. Date ~~May 23rd~~ Evap 4 hrs Ash 29 bkts
4–8 a.m.	Superheater tubes blown Evap 4 hrs Ash 33
8 a.m.–NOON	 Evap 4 hrs Ash 30

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	592	2	—	—	11	18	110	10	8	10	997	
DAYS CONSUMPTION	36	6	—	—	—	14	6	10	—	10	44	
CARRIED FORWARD	628	8	—	—	12	12	117		9	—	953	

OILS	TURBINE OIL	ENGINE OIL	PARAFFIN	CO.2.4	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		72.7	9.4	8.27		5 lbs.	Main and Aux. Condr. & Heater	1½ lbs.
23	48	103650	223	197	12.7%	CHIEF ENGINEER R. G. DONALDSON		

4

VOYAGE NO._____

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS in CHARGE	BOILER STEAM PRESSURE Steaming Boilers	Before Man'uvre Valve	Temp°	H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Guage	VACUUM Kenyon Meter	BAROMETER
Noon–4 p.m.	3rd	170	160	454	105	68	—	—	170	—	1¼	28	—	—
4–8 p.m.	2nd	170	160	455	117	76	—	—	170	—	1¼	28½	—	—
8–12 p.m.	4th	175	165	460	110	72	—	—	175	—	1¼	29	—	—
12–4 a.m.	3rd	175	165	460	117	76	—	—	175	—	1¼	28½	—	—
4–8 a.m.	2nd	175	165	460	120	78	—	—	175	—	1¼	28½	—	—
8 a.m.–Noon	4th	175	165	460	120	78	—	—	175	—	1¼	29	—29"–67	—

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES L.P. Eng Room	Stoke hold	Sea	Disch	LP Exhaust Steam	Thrust Wet	Thrust Dry	Filter	Feed to Boilers
Noon–4 p.m.	27	—	3	—	118	80	108	80	66	92	—	130	120	110	202
4–8 p.m.	27	—	3	—	120	86	114	86	67	92	—	128	120	112	202
8–12 p.m.	27	—	3	—	120	84	108	84	65	90	—	128	122	112	206
12–4 a.m.	27	—	3	—	120	76	105	76	66	92	—	130	120	118	210
4–8 a.m.	27	—	3	—	116	84	106	84	66	92	—	130	120	114	202
8 a.m.–Noon	27	—	3	—	100	88	105	82	63	94	—	130	120	116	208

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Eng Casing	At Aux Pipe	At Purifiers
Noon–4 p.m.	92460	16420	68.4	120		—	—	440	—	40	2¾	—	—
4–8 p.m.	09960	17500	72.9	120		—	—	480	—	40	2½	—	—
8–12 p.m.	21930	16970	70.7	120		—	—	480	—	40	2½	—	—
12–4 a.m.	44240	17510	72.1	120		—	—	480	—	40	2½	—	—
4–8 a.m.	61830	17590	73.3	120		—	—	480	—	40	2½	—	—
8 a.m.–Noon	78580	16750	73.8	120		—	—	480	—	40	2½	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	DISTILLER	DENSITY OF BOILERS
.043 +⅛	—	⅛F.				H. P. Pinion Temp. 125°	24 hrs.		24 hrs.		Bkts. Ton	Port Fwd Star Fwd Port Aft Star Aft

FROM ~~Norfolk Va~~ TOWARDS ~~Marseilles~~

WEATHER CONDITIONS	REMARKS
NOON—4 p.m. 4th Engr. 2 hrs.	P.M. Date ~~May 23rd~~ ~~No. 2 Dynamo overhauled~~ Evap 4 hrs Ash 36
4–8 p.m.	Evaporator coils scaled
8–12 p.m.	~~Evap 1½ Ash 27~~ ~~Armature taken out & Field Magnets~~ tested, Cables rejointed Evap 4 hrs Ash 28
12–4 a.m. Light West'ly winds	A.M. Date ~~May 24th~~
4–8 a.m.	~~Evap 4 hrs Ash 34 bkts~~ ~~Boiler tubes & Superheaters blown~~ Winches being overhauled Evap 4 hrs Ash 30 bkts
8 a.m.—NOON 3rd Engr. 2 hrs 2nd " 2 "	Wires connected on dynamo & being tried, oil leaking from bearing Evap 4 hrs Ash 30

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	628	8	—	—	12	12	117	—	9	—	953	
DAYS CONSUMPTION	30	6	—	—		14	6	10	—	10	44	
CARRIED FORWARD	664	14	—	—	13	6	123	10	9	10	908	

OILS

TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		72	9.3	7.79		5 lbs.	Main & Aux. ~~Condr. & Heater~~	1½ lbs.
23	45	102740	220.8	185	17.2%	CHIEF ENGINEER R. G. DONALDSON		

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM: PRESSURE: Water Strainer (Boilers)	Before Man'uvre Valve	Temp°	STEAM PRESSURES: H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS: Forward	Aft	Gland Steam Press	VACUUM: Guage	Kenoto Meter	BAROMETER
Noon—4 p.m.	3rd	170	160	452	110	72	—	—	170	—	1¼	28½	—	—
4—8 p.m.	2nd	175	165	460	117	76	—	—	175	—	1¼	28½	—	—
8—12 p.m.	4th	175	165	460	120	80	—	—	175	—	1¼	28½	—	—
12—4 a.m.	3rd	170	160	453	116	74	—	—	170	—	1¼	28½	—	—
4—8 a.m.	2nd	175	165	456	117	76	—	—	175	—	1¼	28½	—	—
8 a.m.—Noon	4th	175	165	460	116	74	—	—	175	—	1¼	28½	—29"+79	

	OIL PRESSURES: Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES: Cooler Inlet	Cooler Outlet	TEMPERATURES: Eng Room	Stoke hold	Sea	Disch	LP Exhaust Steam	Air Pumps: Wet (H.P. L.P.)	Dry (Thrust)	Filler	Feed to Boilers
Noon—4 p.m.	27	—	3	—	118	102	107	80	66	92	—	130	120	112	206
4—8 p.m.	27	—	3	—	118	102	107	82	67	92	—	130	120	112	206
8—12 p.m.	27	—	3	—	118	105	106	80	65	92	—	131	120	114	204
12—4 a.m.	27	—	3	—	118	104	114	83	66	91	—	130	120	116	204
4—8 a.m.	27	—	3	—	122	105	116	84	66	92	—	130	122	111	205
8 a.m.—Noon	27	—	3	—	124	104	120	86	64	92	—	130	120	112	200

	REVOLUTIONS: MAIN SHAFT: Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES: FEED PUMP: Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE: At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	95430	16850	70.1	120		—	—	480	—	42	2½	—	—
4—8 p.m.	12940	17510	72.3	120		—	—	480	—	40	2½	—	—
8—12 p.m.	30700	17760	74	120		—	—	480	—	40	2½	—	—
12—4 a.m.	47750	17030	71	120		—	—	480	—	42	2½	—	—
4—8 a.m.	65260	17510	72.9	120		—	—	480	—	40	2½	—	—
8 a.m.—Noon	81260	16000	71.4	120		—	—	480	—	40	2½	—	—

CLEARANCES VERIFIED DAILY: Finger Piece Reading: HP	IP	LP	Finger Piece Index: HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING: MACHINERY (H. P. & L. P. Pinion Temp.)	EVAPORATOR: Port	Starbd	ELECTRIC LIGHT: Port	Starbd	DISTILLER (Ash)	DENSITY OF BOILERS: Port Fwd	Star Fwd	Port Aft	Star Aft
043 +⅛	—	⅛F.					124°	21½ hrs.		24 hrs.		206 Bkts. 7.2 Ton				

FROM Norfolk Va TOWARDS Marseilles

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date May 24th
4th on Dynamo	Ash Hoist drain cock repaired
2 hrs. O. T.	Evap 4 hrs Ash 35 bkts
4—8 p.m.	No. 2 port tank pumped dry
	Centre boiler smoke box cleaned
	Evap 4 hrs Ash 34 bkts
8—12 p.m.	Port boiler smoke box cleaned
	Evap 4 hrs Ash 32 bkts
12—4 a.m.	A.M. Date May 25th
	Star'd smoke boxes cleaned
	Evap 4 hrs Ash 33
4—8 a.m.	Evaporator coils scaled
	Superheater tubes blown
	Ash 35 Vap 1½ hrs.
8 a.m.—NOON	Dynamo again coupled up & run
3rd Engr. 2½ hrs	Vap 4 hrs Ash 37 bkts
2nd " 2 "	No results. Winches overhauled

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	CON.ZA	CYLINDER
BROUGHT FORWARD	664	14	—	—	13	0	123	10	9	10	909						
DAYS CONSUMPTION	36	0	—	—		14	0	10	—	10	45						
CARRIED FORWARD	701	—	—	—	14	—	130	—	10	—	864						

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Log	Slip Per cent	Pressure	Where led to	Feed Heater Press
		72.1	9.3	9.12		5 lbs.	Main & Aux. Condr. & Heater	1½ lbs.
23	44	102680	220.6	217	2.1%	CHIEF ENGINEER R. G. DONALDSON		

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE Xxxx Boilers Strainer	Before Man'uvre Valve	Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	Aft	Gland Steam Press	VACUUM Guage	Kenoto Meter	BAROMETER
Noon—4 p.m.	3rd	175	165	454	120	78	—	—	175	—	1¼	28½	—	—
4—8 p.m.	2nd	175	165	458	120	78	—	—	175	—	1¼	28½	—	—
8—12 p.m.	4th	175	165	458	120	80	—	—	175	—	1¼	28½	—	—
12—4 a.m.	3rd	175	165	462	116	74	—	—	175	—	1¼	28½	—	—
4—8 a.m.	2nd	175	165	460	120	80	—	—	175	—	1¼	28½	—	—
8 a.m.—Noon	4th	175	165	460	120	80	—	—	175	—	1¼	28½	—29"	-91

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	H.P. L.P. Air Pumps XXXXX Wet	Dry	Filter	Feed to Boilers
Noon—4 p.m.	27	—	3	—	124	104	125	94	68	95	—	134	122	114	205
4—8 p.m.	27	—	3	—	122	108	125	98	68	95	—	134	122	110	206
8—12 p.m.	27	—	3	—	122	106	124	94	68	95	—	134	122	112	208
12—4 a.m.	27	—	3	—	122	106	106	80	65	93	—	130	122	110	205
4—8 a.m.	27	—	3	—	122	104	118	88	66	95	—	130	122	112	204
8 a.m.—Noon	27	—	3	—	120	102	118	86	66	94	—	130	122	112	205

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	98920	17760	73.5	120		—	—	480	—	42	2¾	—	—
4—8 p.m.	16700	17680	73.7	120		—	—	480	—	42	2¾	—	—
8—12 p.m.	34490	17780	74.1	120		—	—	480	—	42	2½	—	—
12—4 a.m.	51650	17160	71.5	120		—	—	480	—	42	2½	—	—
4—8 a.m.	69440	17790	74.1	120		—	—	480	—	42	2½	—	—
8 a.m.—Noon	85980	16540	74.1	120		—	—	480	—	42	2½	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING XXXX Refrig Machinery H. P. & L. P. Pinion Temp.	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	XXXX Distiller Ash	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft
.043												184 Bkts.				
⅛+	—	⅛F.					126°	22	hrs.	24	hrs.	6.44 Ton				

FROM Norfolk Va TOWARDS Marseilles

WEATHER CONDITIONS	REMARKS
NOON—4 p.m. 4th Engr. 2 hrs.	P.M. Date May 25th No. 2 dynamo being coupled up Evap. 4 hours Ash 34 bkts
4—8 p.m.	Evap 4 hours Ash 30 bkts
8—12 p.m.	Carbon brushes fitted on commutator Evap 4 hrs Ash 29 bkts
12—4 a.m.	A.M. Date May 26th Evap 4 hrs Ash 32 bkts
4—8 a.m.	Evaporator coils scaled Winch clutch reversing gear overhauled Evap 2 hrs Ash 35
8 a.m.—NOON 3rd Engr. 2 hrs 2nd " 2½ "	No. 2 dynamo running & failed to generate. Winches being worked at Vap 4 hrs Ash 26

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	701	—	—	—	14	—	130	—	10	—	865						
DAYS CONSUMPTION	36	6	—	—	—	14	6	10	—	10	44						
CARRIED FORWARD	737	6	—	—	14	14	136	10	10	10	821						

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		73.2	9.5	8.4		5 lbs.	Main Condr. & Aux. Condr Heater	1½ lbs.
23	49	104710	226.2	200	11.5%			

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG—S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE XXX Boilers	Before Man'uvre Valve	Temp°	STEAM PRESSURES H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	Aft	Gland Steam Press	VACUUM Guage	Kenote Meter	BAROMETER
Noon—4 p.m.	3rd	175	165	454	110	72	—	—	175	—	1¼	28	—	—
4—8 p.m.	2nd	175	165	456	120	82	—	—	175	—	1¼	28	—	—
8—12 p.m.	4th	175	165	460	120	82	—	—	175	—	1¼	28	—	—
12—4 a.m.	3rd	175	165	460	120	80	—	—	175	—	1¼	28	—	—
4—8 a.m.	2nd	175	165	458	120	82	—	—	175	—	1¼	28	—	—
8 a.m.—Noon	4th	175	165	452	120	82	—	—	175	—	1¼	28	—29	-78

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L.P. Exhaust Steam	H.P. L.P. XXXXX Thrust Wet	Dry	Filter	Feed to Boilers
Noon—4 p.m.	26	—	3	—	122	105	120	92	68	96	—	132	124	112	204
4—8 p.m.	28	—	3	—	124	107	118	90	62	93	—	133	124	110	202
8—12 p.m.	26	—	3	—	122	104	118	86	60	93	—	132	124	114	204
12—4 a.m.	26	—	3	—	122	104	118	88	64	95	—	133	124	114	205
4—8 a.m.	27	—	3	—	120	102	114	84	62	93	—	130	122	116	205
8 a.m.—Noon	27	—	3	—	122	104	115	82	63	95	—	130	122	114	205

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	02830	16850	70.2	120		—	—	480	—	40	2½	—	—
4—8 p.m.	21050	18220	75.9	120		—	—	480	—	40	2½	—	—
8—12 p.m.	39190	18140	75.4	120		—	—	480	—	40	2½	—	—
12—4 a.m.	57140	17950	74.7	120		—	—	480	—	40	2½	—	—
4—8 a.m.	75210	18070	75.2	120		—	—	480	—	40	2½	—	—
8 a.m.—Noon	91460	16250	74.5	120		—	—	480	—	40	2½	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING XXXX H.P. Pinion Temp.	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	XXXX DISTILLER Ash	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft
.043												174 Bkts.				
+⅛	—	⅛F.					126°	22	hrs.	2	hrs.	6.1 Ton				

FROM Norfolk Va TOWARDS Marseilles

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date May 26th
4—8 p.m.	Evap 4 hrs Ash 33 bkts
8—12 p.m.	Evap 4 hrs Ash 28 bkts
12—4 a.m.	Evap 4 Ash 36 bkts A.M. Date May 27th
4—8 a.m.	~~Superheaters cleaned~~ Evap 4 Ash 32 bkts Evaporator coils scaled
8 a.m.—NOON	Evap 2 hrs Ash 32 Bunker winch new slide valve spindle fitted Evap 4 Ash 25 bkts

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	737	6	—	—	14	14	136	10	10	10	821						
DAYS CONSUMPTION	36	6	—	—	—	14	6	10	—	10	44						
CARRIED FORWARD	773	12	—	—	15	8	143	—	11	—	777						

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Log	Slip Per cent	Pressure	Where led to	Feed Heater Press
		73.7	9.5	8.48		5 lbs.	Aux. Condr. & Main Condr. & Feed Heater	1½ lbs.
23	50	105480	226.4	202	11.5%	CHIEF ENGINEER R. G. DONALDSON		

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE XXXX Boilers Steamer	Before Man'uvre Valve	Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	Aft	Gland Steam Press	VACUUM Guage	Kenato Meter	BAROMETER
Noon—4 p.m.	3rd	175	165	460	117	76	—	—	175	—	1¼	28	—	—
4—8 p.m.	2nd	175	165	460	125	86	—	—	175	—	1¼	28	—	—
8—12 p.m.						Anchor Watch								
12—4 a.m.						"		"						
4—8 a.m.					Moving to Wharf									
8 a.m.—Noon														

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	LP Exhaust Steam	H.P. L.P. XXXXX Thrust Air Pump Wet	Dry	Filter	Feed to Boilers
Noon—4 p.m.	26	—	3	—	122	104	118	87	68	93	—	130	122	112	204
4—8 p.m.	26	—	3	—	122	104	118	89	68	93	—	130	122	106	196
8—12 p.m.															
12—4 a.m.						Anchor Watch									
4—8 a.m.															
8 a.m.—Noon															

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	08920	17360	72.1	120		—	—	480	—	42	2½	—	—
4—8 p.m.	19410	10490	77.7	120		—	—	480	—	40	2½	—	—
8—12 p.m.													
12—4 a.m.					Anchor Watch								
4—8 a.m.													
8 a.m.—Noon													

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING XXXX H. P. & L. P. Pinion Temp.	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	XXXX DISTILLER Ash	DENSITY OF BOILERS
.043												32 Bkts.	Port Fwd
+⅛	—	⅛F.					126°	6 hrs.		6–15		1.1 Ton	Star Fwd
													Port Aft
													Star Aft

FROM Norfolk Va TOWARDS Marseilles

WEATHER CONDITIONS	REMARKS
NOON–4 p.m. No. 2 Star'd Winch Slide valve fitted. 4th Engr. 3½ hrs.	P.M. Date ~~May 27th Thurs.~~ Steam on deck heaving derricks Evap 4 hrs. Ash 32 bkts
4–8 p.m. ANCHORED Evap 2 hrs	~~Arriving Marseilles Std by 6.18. Half 6.26 Slow 6.38. Stop 6.39 PILOT Slow Ahd 6.45 Stop 7.0 F.W.E. 7.15 P.M. All Auxiliarys shut~~
8–12 p.m.	Light run from centre boiler Evaporator working each watch
12–4 a.m.	A.M. Date ~~May 28th Friday~~ ~~All smoke boxes cleaned out and fires~~ cleaned
4–8 a.m.	Steam raised for moving from anchorage to wharf. Stbd by 6.8 F.W.E. 7.55 A.M.
8 a.m.–NOON 90 tons F.W. supplied to ship Both F.W. Tanks filled	~~Port boiler fires drawn & steam blown off~~ Bunker winch eccentric rods crossed

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	773	12	—	—	15	8	143	—	11	—	777	
DAYS CONSUMPTION	8	15	—	—	—	—	2	—	—	2	11	
CARRIED FORWARD	782	7	—	—	15	11	145	—	11	2	766	

OILS	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		74.2	9.6	7.2		5 lbs.	Main & Aux. Condr. & Heaters	——
6	15	27850	60	45	25%	CHIEF ENGINEER R. G. DONALDSON		

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE After Strainer	BOILER STEAM PRESSURE Before Man'uvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Guage	VACUUM Kenato Meter	BAROMETER
Noon—4 p.m.					Friday May 28th									
4—8 p.m.														
8—12 p.m.														
12—4 a.m.														
4—8 a.m.														
8 a.m.—Noon														

Centre Boiler fires drawn & steam blown off
Port " pumped out & doors knocked in
All firemen cleaning up in engine room & wiping down

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	Air Pumps Wet	Air Pumps Dry	Filter	Feed to Boilers
Noon—4 p.m.															
4—8 p.m.															
8—12 p.m.															
12—4 a.m.															
4—8 a.m.															
8 a.m.—Noon															

No. 1 Dynamo brush holder broken
Changed brushes & holder from No. 2 dynamo
3rd Engr. on duty till 6-0 A.M. & from 6-0 P.M. to 1-0 A.M.

Saturday May 9th

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.													
4—8 p.m.													
8—12 p.m.													
12—4 a.m.													
4—8 a.m.													
8 a.m.—Noon													

Cargo commenced 7-0 AM. All winches working
Port Boiler Smoke boxes & tubes cleaned
Centre Boiler pumped out and doors taken off
Standard Repair Co., doing repair work
No. 2 Armature taken adrift & taken to repair shop
Coloer connection of "Evinrood" sent for repair

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING REFRIG MACHINERY	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	DISTILLER	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft

FROM at Marseilles TOWARDS France

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date
	Boiler scalers commenced Port-Boiler
4—8 p.m.	Drain repaired on circulating pump ~~Circulator pump impeller gland packed~~ ~~Firemen chipping salt from Port boiler~~ ~~Port Boiler Star'd Backend & tube plate~~
8—12 p.m.	Dynamo stopped 7-30 P.M. Fires banked Cargo finished 5-0 P.M. 3rd Engr. examined by Doctor & ordered
12—4 a.m. 5th Engr. on duty 1-01 P.M.—10-30 P.M.	to hospital Date 4th Engr. drunk
4—8 a.m. 4th Engr. 8-30 AM to 10-30 P.M.	~~Sunday May 30th~~ ~~Cargo commenced 7-0 AM to 4-0 P.M.~~ Boiler scalers in port boiler
8 a.m.—NOON 5th Engr. 6-0 AM. to 8-0 AM.	Dynamo running 4th Engr. on duty

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD																	
DAYS CONSUMPTION																	
CARRIED FORWARD																	

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE After Strainer	BOILER STEAM PRESSURE Before Man'uvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Guage	VACUUM Kenoto Meter	BAROMETER
					Monday May 31st									
Noon—4 p.m.														
4—8 p.m.	Cargo working from 7-0 A.M. to 5-0 P.M.													
8—12 p.m.	Boiler scaler in Port & Centre Boiler													
12—4 a.m.	1 Zinc plate fitted centre boiler													
4—8 a.m.	Centre boiler Tubes swept & back ends cleaned													
8 a.m.—Noon														

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	Air Pumps Wet	Air Pumps Dry	Filter	Feed to Boilers
	Salt being chipped from Furnace Port Boiler														
Noon—4 p.m.	Tank top and Bilges being cleaned out														
4—8 p.m.	Weir pump glands packed														
8—12 p.m.	Baffle plates fitted in port boiler furnaces														
12—4 a.m.	All ballast tanks filled														
4—8 a.m.	Dynamo running till 10-30 P.M.														
8 a.m.—Noon															

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	5th Engr. on duty. 4th Engr. drunk												
4—8 p.m.													
8—12 p.m.	Tuesday June 1st												
12—4 a.m.													
4—8 a.m.													
8 a.m.—Noon	Cargo commenced 7-0 A.M. to 5-0 P.M.												

CLEARANCES VERIFIED DAILY Finger Place Reading HP	IP	LP	Finger Place Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING REFRIG MACHINERY	EVAPORATOR Port	EVAPORATOR Starbd	ELECTRIC LIGHT Port	ELECTRIC LIGHT Starbd	DISTILLER	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft

FROM — at Marseilles TOWARDS

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Baffle plates fitted centre blr furnaces Centre boiler brushed down, washed out
4—8 p.m.	doors jointed & pumped up ~~Weir pump shuttle valve & gear overhauled~~ ~~Firemen heaving ashes, cleaning E. room~~ ~~Bilges, Tank tops & tunnel~~
8—12 Boiler makers working at tubes. Port blr.	Chipping salt from port boiler furnace Boiler scalers chipping port boilers
12—4 a.m. 4th Engr. drunk	A.M. Date 3rd Engr. resumed duty 1-30 A.M. ~~2nd " on duty 6-0 P.M. to 10-30 P.M. Dynamo~~
4—8 a.m.	Wednesday June 2nd
8 a.m.—NOON	Weir pump valve gear lined up and gear replace Air checks overhauled centre boiler Top door jointed & fires set away "

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD																	
DAYS CONSUMPTION																	
CARRIED FORWARD																	

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE After Strainer	BOILER STEAM PRESSURE Before Man'uvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H.P Ahead Inlet	H.P Second Expansion	H.P Exhaust	L.P Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Guage	VACUUM Kenoto Meter	BAROMETER
Noon–4 p.m.					Wednesday June 2nd									
4–8 p.m.														
8–12 p.m.		Bridges built—fire bars fixed												
12–4 a.m.		Boiler scalers in port boiler												
4–8 a.m.		" makers on port boiler tubes												
8 a.m.–Noon		Furnace baffles fitted port boiler												

	OIL PRESSURES Pump Discharge	OIL PRESSURES Cooler Outlet	OIL PRESSURES Bearings Mean	OIL PRESSURES Main Thrust	OIL TEMPERATURES Cooler Inlet	OIL TEMPERATURES Cooler Outlet	TEMPERATURES Eng Room	TEMPERATURES Stoke hold	TEMPERATURES Gas	TEMPERATURES Disch	TEMPERATURES L.P Exhaust Steam	TEMPERATURES Air Pumps Wet	TEMPERATURES Air Pumps Dry	TEMPERATURES Filter	TEMPERATURES Feed to Boilers
Noon–4 p.m.	Centre boiler circulated & steam raised														
4–8 p.m.	~~10-30 P.M. Star'd boiler fires drawn & steam blown off~~														
8–12 p.m.	~~2nd Engineer opeing up at 6-0 A.M.~~														
12–4 a.m.	~~5th " on duty till 10-30 P.M.~~														
4–8 a.m.															
8 a.m.–Noon															

	REVOLUTIONS MAIN SHAFT Counter	REVOLUTIONS MAIN SHAFT Per Watch	REVOLUTIONS MAIN SHAFT Per Min	REVOLUTIONS Main Circg Pump	REVOLUTIONS Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	DOUBLE STROKES FEED PUMP Per Watch	DOUBLE STROKES FEED PUMP Per Hour	DOUBLE STROKES Air Pump per Min	DOUBLE STROKES Oil Pump per Min	AIR PRESSURE At Fan Casing	AIR PRESSURE At Ash Pits	AIR PRESSURE At Furnaces
Noon–4 p.m.				Thursday June 3rd									
4–8 p.m.													
8–12 p.m.	Cargo commenced 7-0 AM to 5-0 P.M.												
12–4 a.m.	Port boiler finished scaling, washed out												
4–8 a.m.	& bottom doors jointed, & pumped up												
8 a.m.–Noon	Star'd boiler tubes swept, back ends cleaned												

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING REFRIG MACHINERY	EVAPORATOR Port	EVAPORATOR Starbd	ELECTRIC LIGHT Port	ELECTRIC LIGHT Starbd	DISTILLER	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft

FROM — at Marseilles TOWARDS

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Bridges built Star'd boiler 6 Zinc plates port boiler
4—8 p.m.	Boiler makers on tube Salt chipped out of back end &c Copper expansion piece repaired & rejointed
8—12 p.m.	H. P. Turbine oil pipes repaired E. R. Bilge valve found broken, so had same repaired. Radojets discharge valves examined
12—4 a.m.	A.M. Date (1 broken) Dynamo brought on board & fixed
4—8 a.m.	Had 1 hour trial run, satisfactory Peaks pumped up 5th on duty, 6-0 P.M. to 10-30 PM
8 a.m.—NOON	Scalers finished, no time to scale Star'd boiler

	COAL CONSUMPTION												OILS				
	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts					
BROUGHT FORWARD																	
DAYS CONSUMPTION																	
CARRIED FORWARD																	

STEAMING TIME		Average Revs. Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS CHARGE	BOILER STEAM			STEAM PRESSURES						VACUUM		BAROMETER
		PRESSURE			H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS		Gland Steam Press	Guage	Kenyon Meter	
		After Strainer	Before Man'uvre Valve	Temp°					Forward	Aft				
Noon–4 p.m.														
4–8 p.m.					Friday June 4th									
8–12 p.m.														
12–4 a.m.	Steam ordered for Saturday morning													
4–8 a.m.	Fires set away on port boiler & Star'd boiler													
8 a.m.–Noon	Boiler makers finished tubes													

	OIL PRESSURES				OIL TEMPERATURES		TEMPERATURES								
	Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	Cooler Inlet	Cooler Outlet	Eng Room	Stake hold	Sea	Disch	L.P. Exhaust Steam	Air Pumps Wet	Air Pumps Dry	Filter	Feed to Boilers
Noon–4 p.m.	Radojet discharge valve repaired														
4–8 p.m.	Flexible hose pipe fitted on H. P. Turbine Oil Pipe														
8–12 p.m.	Clip made for steam pipe joint in Engine room														
12–4 a.m.	4th engr paid off														
4–8 a.m.	All boilers circulated during night														
8 a.m.–Noon	Cargo finished 4-0 P.M.														

	REVOLUTIONS					DOUBLE STROKES					AIR PRESSURE		
	MAIN SHAFT			Main Circg Pump	Oil Cooler Pump	FEED PUMP			Air Pump per Min	Oil Pump per Min	At Fan Casing	At Ash Pits	At Furnaces
	Counter	Per Watch	Per Min			Counter	Per Watch	Per Hour					
Noon–4 p.m.	Engineers commenced Watches 12-0 MIDNIGHT												
4–8 p.m.	Coal used in Port from Thursday 6-15 P.M. to												
8–12 p.m.	8-50 AM. Saturday. Full away—45½ Tons												
12–4 a.m.													
4–8 a.m.													
8 a.m.–Noon													

CLEARANCES VERIFIED DAILY						SHAFT HORSE POWER	HOURS WORKING					DENSITY OF BOILERS
Finger Piece Reading			Finger Piece Index				REFRIG MACHINERY	EVAPORATOR		ELECTRIC LIGHT		DISTILLER	
HP	IP	LP	HP	IP	LP			Port	Starbd	Port	Starbd		Port Fwd
													Star Fwd
													Port Aft
													Star Aft

FROM _____ at Marseilles TOWARDS _____

WEATHER CONDITIONS	REMARKS
NOON–4 p.m. Thursday 2½ Friday 7 Saturday 3½	P.M. Date _____ Work done by Repair Co. in Port Boilers (P. & C.) scaled thoroughly
4–8 p.m. Sunday 3½ Monday 3½ Tuesday 3½	
8–12 p.m. Wednesday 4½ Thursday 4½ Friday 9	
12–4 a.m. Saturday 4 45½	A.M. Date _____
4–8 a.m.	
8 a.m.—NOON	

	COAL CONSUMPTION												OILS				
	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts					
BROUGHT FORWARD																	
DAYS CONSUMPTION																	
CARRIED FORWARD																	

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS CHARGE	BOILER STEAM PRESSURE After Strainer	BOILER STEAM PRESSURE Before Man'uvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Guage	VACUUM Kenoto Meter	BAROMETER
Noon—4 p.m.														
4—8 p.m.														
8—12 p.m.														
12—4 a.m.														
4—8 a.m.														
8 a.m.—Noon 1st	175	165	432	135	98	—	—	175	—	1¼	26	—	29"-45	

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	Exhaust Steam	Air Pumps Wet	Air Pumps Dry	Filter	Feed to Boilers
Noon—4 p.m.															
4—8 p.m.															
8—12 p.m.															
12—4 a.m.															
4—8 a.m.															
8 a.m.—Noon 27	—	3	—	122	105	102	98	64	90	—	132	126	110	204	

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Purifiers
Noon—4 p.m.													
4—8 p.m.													
8—12 p.m.													
12—4 a.m.													
4—8 a.m.													
8 a.m.—Noon		80		145		—	—	480	—	40	2½	—	—

Counter Spindle Broken

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING REFRIG MACHINERY	EVAPORATOR Port	EVAPORATOR Starbd	ELECTRIC LIGHT Port	ELECTRIC LIGHT Starbd	DISTILLER	DENSITY OF BOILERS
													Port Fwd
													Star Fwd
													Port Aft
													Star Aft
.043 4¼	—	⅛F					124°	—		4-51		—	

XXXX H. P. & L. P. Pinion Temp.

XXXX Ash

H.M.

FROM _____ TOWARDS Palermo

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date _____
4—8 p.m.	Arrived Marseilles 766 Tons Used in Port 45½ "
8—12 p.m.	~~720½ Tons~~
12—4 a.m.	A.M. Date Saturday June 5th Turbines warmed through and all auxiliaries ~~tried~~
4—8 a.m. Fresh N.W. Wind smooth sea	Stand by ~~7.15~~ A.M. Various movements at ~~Breakwater till Full Ahd. 8.9 A.M.~~
8 a.m.—NOON	

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	782	7	—	—	15	11	145	—	11	2	720	10
DAYS CONSUMPTION	7	11	—	—	—	2	1	5	—	2	9	
CARRIED FORWARD	789	18	—	—	15	13	146	5	11	4	711	10

OILS	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD					
DAYS CONSUMPTION					
CARRIED FORWARD					

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines ~~10.4~~	By Ship ~~10.1~~	Slip Per cent	Pressure	Where led to	Feed Heater Press
4	51	80	54.4	49	2.8%		~~Main Condenser~~ Feed Heater	

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE: ~~Boiler Strainer~~ Boiler	BOILER STEAM PRESSURE: Before Man'uvre Valve	BOILER STEAM: Temp°	STEAM PRESSURES: H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS: Forward	EJECTORS: Aft	Gland Steam Press	VACUUM: Guage	VACUUM: Kenoto Meter	BAROMETER
Noon–4 p.m.	3rd	175	165	440	135	98	—	—	—	175	1¼	26½	—	—
4–8 p.m.	2nd	175	165	438	135	98	—	—	—	175	1¼	26	—	—
8–12 p.m.	1st	175	165	444	135	98	—	—	—	175	1¼	26	—	—
12–4 a.m.	3rd	175	165	452	135	98	—	—	—	175	1¼	26	—	—
4–8 a.m.	2nd	175	165	450	135	98	—	—	—	175	1¼	26	—	—
8 a.m.–Noon	1st	175	165	456	135	98	—	—	—	175	1¼	26	—29"–2[illegible]	

	OIL PRESSURES: Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES: Cooler Inlet	Cooler Outlet	TEMPERATURES: Eng Room	Stoke hold	Sea	Disch	LP Exhaust Steam	H.P. Air Pumps ~~Wet~~	L.P. Air Pumps ~~Dry~~	Filter	Feed to Boilers
												Thrust			
Noon–4 p.m.	25	—	3	—	124	108	104	82	64	89	—	126	124	112	204
4–8 p.m.	27	—	3	—	128	110	109	84	64	90	—	130	125	114	200
8–12 p.m.	26	—	3	—	128	116	114	85	66	94	—	136	124	110	206
12–4 a.m.	27	—	3	—	130	116	104	80	66	98	—	140	126	110	206
4–8 a.m.	25	—	3	—	128	114	114	82	67	97	—	140	126	116	206
8 a.m.–Noon	26	—	3	—	130	118	118	86	68	98	—	140	128	115	206

	REVOLUTIONS: MAIN SHAFT: Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES: FEED PUMP: Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE: At Fan Casing	At Ash Pits	At Furnaces
Noon–4 p.m.			80	145		—	—	480	—	36	2½	—	—
4–8 p.m.	Counter		80	145		—	—	480	—	40	2	—	—
8–12 p.m.	Out of		80	145		—	—	480	—	40	2	—	—
12–4 a.m.	Order		80	145		—	—	480	—	40	2½	—	—
4–8 a.m.			80	145		—	—	480	—	38	2¼	—	—
8 a.m.–Noon			80	145		—	—	480	—	40	2½	—	—

CLEARANCES VERIFIED DAILY: Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING: ~~Refrig. Machinery~~ H.P. & L.P. Pinion Temp.	EVAPORATOR Port	EVAPORATOR Starbd	ELECTRIC LIGHT Port	ELECTRIC LIGHT Starbd	~~Distiller~~ Ash	DENSITY OF BOILERS: Port Fwd	Star Fwd	Port Aft	Star Aft
.043												180 Bkts				
+⅛	—	⅛F.					130°	10½ hrs.		24 hrs.		6.34 Ton				

FROM Marseilles TOWARDS Palermo

WEATHER CONDITIONS	REMARKS
NOON–4 p.m.	P.M. Date Saturday June 5th Steam on deck, using winches for cleaning cargo holds Ash 30 bkts.
4–8 p.m.	No. 1 Port Bilge pumping, no results Poor vacuum, engines vibrating badly Ash 31 bkts
8–12 p.m.	Vibration still on, Gearing awfully noisy Ash 28 bkts.
0–4 a.m.	A.M. Date ~~Sunday June 6th~~ Trouble with condensate pump stopping Ash 32 Evap 3½ hrs.
4–8 a.m. Light N. W'ly winds, smooth sea	Condensate pump again stopped. new top half brass fitted & Rotor adjusted. Ash 31 bkts. Evap 3 hrs.
8 a.m.–NOON	Steam on deck Superheaters blown Ash 30 bkts. ~~Evap 3 hours.~~

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	789	18	—	—	15	13	146	5	5	11	711	10
DAYS CONSUMPTION	35	6	—	—		14	6	10	10	—	43	—
CARRIED FORWARD	825	4	—	—	16	7	152	15	15	11	668	10

OILS

TURBINE OIL	ENGINE OIL	PARAFFIN	CO.24	CYLINDER

STEAMING TIME Hours	Mins	Average Revs Per Min	DISTANCE RUN By Engines	By Skip	Slip Per cent
			10.4	9.86	
23	50	80	247.8	235	5.7%

AUXILIARY EXHAUST STEAM Pressure	Where led to	Feed Heater Press
5 lbs.	Main Condenser & Feed Heater	1 lb.

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE: Before Steamer	BOILER STEAM PRESSURE: Before Man'uvre Valve	BOILER STEAM: Temp°	STEAM PRESSURES: H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS: Forward	EJECTORS: Aft	Gland Steam Press	VACUUM: Guage	VACUUM: Kenoto Meter	BAROMETER
Noon—4 p.m.	3rd	175	165	450	135	98	—	—	—	175	1¼	26	—	—
4—8 p.m.	2nd	175	165	450	135	98	—	—	—	175	1¼	26	—	—
8—12 p.m.	1st	175	165	452	135	98	—	—	—	175	1¼	26	—	—
12—4 a.m.	3rd	175	165	452	135	98	—	—	—	175	1¼	26	—	—
4—8 a.m.	2nd	175	165	448	135	98	—	—	—	175	1¼	26	—	—
8 a.m.—Noon	1st	175	165	450	135	98	—	—	—	175	1¼	26	—29"-60	

	OIL PRESSURES: Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES: Cooler Inlet	Cooler Outlet	TEMPERATURES: Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	H.P. L.P. XXXXX Air Pumps Wet	Dry	Filter	Feed to Boilers
Noon—4 p.m.	25	—	3	—	132	117	115	83	70	102	—	140	132	109	205
4—8 p.m.	27	—	3	—	129	114	117	86	68	100	—	139	130	110	205
8—12 p.m.	27	—	3	—	128	115	119	88	69	98	—	140	130	115	207
12—4 a.m.	27	—	3	—	130	113	112	80	68	102	—	132	132	110	196
4—8 a.m.	27	—	3	—	128	114	118	88	67	103	—	138	130	110	204
8 a.m.—Noon	27	—	3	—	124	115	112	84	70	103	—	138	130	112	204

	REVOLUTIONS: MAIN SHAFT: Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES: FEED PUMP: Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE: At Fan Casing	At Ash Pits	At Furnace
Noon—4 p.m.			80	145		—	—	480	—	40	2¾	—	—
4—8 p.m.	Counter		80	145		—	—	480	—	40	2¾	—	—
8—12 p.m.	Out of		80	145		—	—	480	—	40	2¾	—	—
12—4 a.m.	Order		80	145		—	—	480	—	40	2¾	—	—
4—8 a.m.			80	145		—	—	480	—	40	2¾	—	—
8 a.m.—Noon			80	145		—	—	480	—	40	2¾	—	—

CLEARANCES VERIFIED DAILY: Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	XXXX REFRIG MACHINERY	HOURS WORKING: EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	XXXX DRILLER	DENSITY OF BOILERS
.043 +⅛	—	⅛F.					132°	21	hrs.	24	hrs.	181 Bkts. 6.35 Ton	Port Fwd / Star Fwd / Port Aft / Star Aft

H. P. L. P. Pinion Temp.

FROM Marseilles TOWARDS Palermo

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Sunday June 6th
	Steam on after deck. No. 1 P & S Bilge
	pumped Evap 3½ hrs. Ash 33 bkts
4—8 p.m.	Poor Vacuum, crack found in old expan-
	sion pipe, covered with red lead
	Evap 3½ hrs Ash 30 bkts
8—12 p.m.	Passage & 1st Officers room lights
	repaired. Wire gone in bunker
	Evap 3½ Ash 30 bkts
12—4 a.m. Light N.W. &	A.M. Date Monday June 7th
Easterly wind	Gearing very noisy
Smooth sea	crack in expansion piece
4—8 a.m.	Evap 3½ hrs Ash 31 bkts
	Poor vacuum, air being drawn through
	Evap 3½ hrs Ash 30 bkts
Evap 3½ hrs Ash 30	Weir pump working direct from Condr.
deck from 6-0 A.M.	Condensate Pump stopped
Steam on	Joint made on steam line. After deck

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	825	4	—	—	16	7	152	15	11	14	668	10					
DAYS CONSUMPTION	35	6	—	—	—	14	6	10	—	10	43						
CARRIED FORWARD	860	10	—	—	17	1	159	5	12	4	625	10					

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Ship Per cent	Pressure	Where led to	Feed Heater Press
			10.4	9.06		4 lbs.	Main Condr. & Feed Heater	1 lb.
23	43	80	246.6	215	13.4%			

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS ONBOARD	BOILER STEAM PRESSURE			STEAM PRESSURES							VACUUM		BAROMETER
		XXXX Boilers			H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	Guage	Kenoto Meter	
		Water Steamer	Before Man'uvre Valve	Temp°										
Noon–4 p.m.	3rd	175	165	448	132	92	—	—	—	175	1¼	Var-	—	—
4–8 p.m.	2nd	175	165	450	132	92	—	—	—	175	1¼	ious	—	—
8–12 p.m.														
12–4 a.m.														
4–8 a.m.														
8 a.m.–Noon														

	OIL PRESSURES				OIL TEMPERATURES		TEMPERATURES								
	Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	Cooler Inlet	Cooler Outlet	Eng Room	Stoke hold	Sea	Disch	L.P. Exhaust Steam	XXXXX Water	XXXXX Air	Filter	Feed to Boilers
Noon–4 p.m.	25	—	2½	—	126	114	108	81	70	100	—	134	124	106	202
4–8 p.m.	27	—	2½	—	125	114	116	90	70	100	—	134	124	110	206
8–12 p.m.															
12–4 a.m.															
4–8 a.m.															
8 a.m.–Noon															

	REVOLUTIONS					DOUBLE STROKES					AIR PRESSURE		
	MAIN SHAFT Counter	MAIN SHAFT Per Watch	MAIN SHAFT Per Min	Main Circg Pump	Oil Cooler Pump	FEED PUMP Counter	FEED PUMP Per Watch	FEED PUMP Per Hour	Air Pump per Min	Oil Pump per Min	At Fan Casing	At Ash Pits	At Furnaces
Noon–4 p.m.	Counter		80	145		—	—	480	—	40	2¾		
4–8 p.m.	Out of Order		80	145		—	—	480	—	40	2¾		
8–12 p.m.													
12–4 a.m.													
4–8 a.m.													
8 a.m.–Noon													

CLEARANCES VERIFIED DAILY						SHAFT HORSE POWER	XXXX MACHINERY	HOURS WORKING				XXXX DISTILLER	DENSITY OF BOILERS	
Finger Piece Reading			Finger Piece Index				REFRIG P.	EVAPORATOR		ELECTRIC LIGHT				
HP	IP	LP	HP	IP	LP		H. P. Pinion Temp	Port	Starbd	Port	Starbd		Port Fwd	
.043												65 Bkts.	Star Fwd	
+⅛	—	⅛F					130°		—	6½	hrs.	2.2 Ton	Port Aft	
													Star Aft	

FROM Marseilles **TOWARDS** Palermo

WEATHER CONDITIONS	REMARKS
NOON—4 p.m. Ford 8′—8″ Draft Aft. 15′—9″ Mean 12′—2½	P.M. Date June 7th Monday Port boiler star'd furnace bottom tube commenced leaking badly Ash 32 bkts
4—8 p.m. Ash 30	5th Engineer making patch for broken winch gland 2½ hrs A. T. Arriving Palermo Stb by 6-23. Slow 6-30 Stop 6-32 Full Ast 6-33
8—12 p.m.	Stop 6-35 Various movements till F.W.E. 7.16 P.M. Fires drawn Port Boiler Steam blown off dynamo till 4-0 A.M.
12—4 a.m.	A.M. Date ~~June 8th Tuesday~~ No. 2 dynamo taken adrift to have new washer fitted. Self making washed & fitting same
4—8 a.m.	2nd Engr. caulking leaky tube and rejointing washer on stopper
8 a.m.—NOON	Whistle joint on port boiler remade Starb'd boiler back end being cleaned All winches working cargo all day

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	860	10	—	—	17	1	139	5	12	4	625	10
DAYS CONSUMPTION	8	1	—	—	—	4	2	3	—	2	10	10
CARRIED FORWARD	868	11	—	—	17	5	161	8	12	6	615	

OILS

TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
			10.4	8.4		4 lbs.	Main Condr. & Feed Heater	1 lb.
6	30	80	67.6	55	19.2%			

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO 1

ENGINEER'S LOG S.S. Willdomino

WATCH	ENGINEERS in CHARGE	BOILER STEAM: PRESSURE: After Strainer	BOILER STEAM: PRESSURE: Before Man'uvre Valve	BOILER STEAM: Temp°	STEAM PRESSURES: H.P. Ahead Inlet	STEAM PRESSURES: H.P. Second Expansion	STEAM PRESSURES: H.P. Exhaust	STEAM PRESSURES: L.P. Inlet	STEAM PRESSURES: EJECTORS: Forward	STEAM PRESSURES: EJECTORS: Aft	Cond. Steam Press	VACUUM: Guage	VACUUM: Kenoto Meter	BAROMETER
Noon–4 p.m.					Tuesday June 8th									
4–8 p.m.		Circulating pump drain pipe rejointed												
8–12 p.m.		No. 1 Port Bilge Suction pipe taken												
12–4 a.m.		off & 2" cut-off end leading to strum-box												
4–8 a.m.		No. 1 Bilge pumped out												
8 a.m.–Noon														

	OIL PRESSURES: Pump Discharge	OIL PRESSURES: Cooler Outlet	OIL PRESSURES: Bearings Mean	OIL PRESSURES: Main Thrust	OIL TEMPERATURES: Cooler Inlet	OIL TEMPERATURES: Cooler Outlet	TEMPERATURES: Eng Room	TEMPERATURES: Stoke hold	TEMPERATURES: Gas	TEMPERATURES: Disch	TEMPERATURES: L.P. Exhaust Steam	TEMPERATURES: Air Pumps: Wet	TEMPERATURES: Air Pumps: Dry	TEMPERATURES: Filter	TEMPERATURES: Feed to Boilers
Noon–4 p.m.															
4–8 p.m.	Both oil pumps repacked														
8–12 p.m.	Port boiler pumped up from E. R. Tank & fires set														
12–4 a.m.	away. Steam ordered for 5-0 P.M. WED.														
4–8 a.m.	Winches attended to when out of order														
8 a.m.–Noon	Steam on deck till 8-0 P.M.														
	Dynamos running till 10.30 P.M.														

	REVOLUTIONS: MAIN SHAFT: Counter	REVOLUTIONS: MAIN SHAFT: Per Watch	REVOLUTIONS: MAIN SHAFT: Per Min	REVOLUTIONS: Main Circg Pump	REVOLUTIONS: Oil Cooler Pump	DOUBLE STROKES: FEED PUMP: Counter	DOUBLE STROKES: FEED PUMP: Per Watch	DOUBLE STROKES: FEED PUMP: Per Hour	DOUBLE STROKES: Air Pump per Min	DOUBLE STROKES: Oil Pump per Min	AIR PRESSURE: At Fan Casing	AIR PRESSURE: At Ash Pits	AIR PRESSURE: At Furnaces
Noon–4 p.m.													
4–8 p.m.	Wednesday June 9th												
8–12 p.m.	Condensate pump bearings overhauled												
12–4 a.m.	1 new set of brasses fitted Governor and												
4–8 a.m.	No. 2 dynamo bearing washer adjusted												
8 a.m.–Noon	" " " being run successfully												

CLEARANCES VERIFIED DAILY: Finger Place Reading: HP	IP	LP	Finger Place Index: HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING: REFRIG MACHINERY	EVAPORATOR: Port	EVAPORATOR: Starbd	ELECTRIC LIGHT: Port	ELECTRIC LIGHT: Starbd	DISTILLER	DENSITY OF BOILERS
													Port Fwd
													Star Fwd
													Port Aft
													Star Aft

FROM ~~at Palermo~~ TOWARDS ~~Sicily~~

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Turbine warmed through 24½ Tons F. Water supplied ~~Red lead putty being stuck~~ ~~around crack in copper exhaust expansion piece~~
4—8 p.m.	
8—12 p.m.	Coal used from arrival Palermo 6.30 P.M. Monday to ~~9.45 P. M. Wednesday~~
12—4 a.m.	A.M. Date
4—8 a.m.	~~Monday 6.30 P.M. to 12-0 P.M.~~ 2 Tons ~~Tuesday 12-0 P.M. to 12-0 P.M.~~ 7 " Wednesday 12-0 P.M. to 9.45 P.M. 5½ " 14½
8 a.m.—NOON	

	COAL CONSUMPTION												OILS				
	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts					
BROUGHT FORWARD																	
DAYS CONSUMPTION																	
CARRIED FORWARD																	

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE ~~Main~~ Donkey Boilers	Before Man'uvre Valve	Temp°	STEAM PRESSURES H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Guage	Kenyon Meter	BAROMETER
Noon–4 p.m.														
4–8 p.m.														
8–12 p.m.	1st	175	165	436	135	98	—	—	—	175	1¼	25	—	—
12–4 a.m.	3rd	175	165	432	135	98	—	—	—	175	1¼	25	—	—
4–8 a.m.	2nd	175	165	446	135	98	—	—	—	175	1¼	25½	—	—
8 a.m.–Noon	1st	175	165	446	135	98	—	—	—	175	1¼	25½	—	29"-6

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L.P. Exhaust Steam	~~H.P.~~ L.P. ~~Air Pumps~~ Thrust Wet	Dry	Filter	Fwd to Boilers
Noon–4 p.m.															
4–8 p.m.															
8–12 p.m.	26	—	3	—	120	104	116	86	69	102	—	130	122	110	204
12–4 a.m.	25	—	3	—	126	104	104	82	72	108	—	138	126	110	205
4–8 a.m.	27	—	3	—	130	114	106	84	72	108	—	135	130	117	205
8 a.m.–Noon	26	—	3	—	128	116	108	84	72	108	—	136	130	113	206

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circ. Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE Astern	Ahead	Aux.
Noon–4 p.m.													
4–8 p.m.													
8–12 p.m.	97000	10330	76.5	140		—	—	480	—	40	2½	—	—
12–4 a.m.	15550	18550	77.2	140		—	—	480	—	40	2½	—	—
4–8 a.m.	34270	18720	78	140		—	—	480	—	40	2½	—	—
8 a.m.–Noon	46430	12160	78	140		—	—	480	—	40	2½	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP
.043					
+⅛	—	⅛F.			

SHAFT HORSE POWER

~~H.P.~~ I.P. ~~Main Bearing~~ Pinion Temp. 126°

HOURS WORKING ~~H.P.~~ L.P. Main Engines 45

EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	~~Air Pumps~~ DISTILLER Ash
		hrs. mins.		93 Bkts.
9 hrs.		12–10		3.2 Ton

DENSITY OF BOILERS	
Port Fwd	
Star Fwd	
Port Aft	
Star Aft	

FROM Palermo TOWARDS Messina

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M Date Wed. June 9th FORWARD 10'—10" DRAFT AFT 18— 0 MEAN 14— 5
4—8 p.m.	Counter repaired
8—12 p.m.	Stand by 8-45 Slow Ahd 9-30 Stop 9-31 F. Ast 9-32 Slow Ahd 9-34 Stop 9-35 Half Ast. 9-36 Stop (PILOT) 9-37 Full AWAY 9.45 P. M.
0—4 a.m.	A.M. Date Thurs. June 10th Drawing air at expansion piece Evap 3 hrs Ash 33 bkts
4—8 a.m. Light North-erly wind, smooth sea	Poor Vacuum Evap 4 hrs Ash 30 bkts
8 a.m.—NOON	Std by 10-20 F. W. E. 10-40 A.M. Evap. 2 hrs. Ash 30 bkts.

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	868	11	—	—	17	5	161	8	12	6	600	10					
24th CONSUMPTION	17	13	—	—	—	7	3	5	—	5	21	10					
CARRIED FORWARD	886	4	—	—	17	12	164	13	12	11	579						

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Log	Slip Per cent	Pressure	Where led to	Feed Heater Press
12	10	81.8 59760	10.6 129	9.87 120	7.5%	4 lbs.	Main Condr. & Heater	1 lb.

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO 4

ENGINEER'S LOG S.S. Willdomino

WATCH	ENGINEERS CHARGE	BOILER STEAM			STEAM PRESSURES							VACUUM		BAROMETER
		PRESSURE							EJECTORS					
		After Strainer	Before Man'vre Valve	Temp'	H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	Forward	Aft	Gland Steam Press	Guage	Kenotic Meter	
Noon–4 p.m.														
4–8 p.m.					Thursday June 10th									
8–12 p.m.														
12–4 a.m.	Centre boiler used for winches & Aux.s													
4–8 a.m.	Mr. Wilson arrived from Liverpool & signed 4th													
8 a.m.–Noon	Steering Engine top end brasses adjusted													

	OIL PRESSURES				OIL TEMPERATURES		TEMPERATURES									
	Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	Cooler Inlet	Cooler Outlet	Eng Room	Stoke hold	Sea	Disch	L.P. Exhaust Steam	Air Pumps Wet	Air Pumps Dry	Filter	Feed to Boilers	
Noon–4 p.m.	Condensate pump bearings examined															
4–8 p.m.	2nd Engr. off sick & examined by Doctor															
8–12 p.m.	Smoke boxes cleaned out each watch															
12–4 a.m.	Ashes heaved on deck															
4–8 a.m.	5th Engr. attending on winches															
8 a.m.–Noon	Engineers keeping watches															

	REVOLUTIONS					DOUBLE STROKES					AIR PRESSURE		
	MAIN SHAFT			Main Circ. Pump	Oil Cooler Pump	FEED PUMP			Air Pump per Min	Oil Pump per Min	At Fan Casing	At Air Pipe	At Furnace
	Counter	Per Watch	Per Min			Counter	Per Watch	Per Hour					
Noon–4 p.m.	Cargo worked all day												
4–8 p.m.													
8–12 p.m.													
12–4 a.m.													
4–8 a.m.													
8 a.m.–Noon													

CLEARANCES VERIFIED DAILY						SHAFT HORSE POWER	HOURS WORKING					DENSITY OF BOILERS
Finger Piece Reading			Finger Piece Index				REFRIG MACHINERY	EVAPORATOR		ELECTRIC LIGHT		DISTILLER	
HP	IP	LP	HP	IP	LP			Port	Starbd	Port	Starbd		Port Fwd
													Star Fwd
													Port Aft
													Star Aft

FROM at Messina TOWARDS

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date ~~Friday June 11th~~
4—8 p.m.	Cargo worked till sailing time Weir pump piston gland packed Clip made & fitted on burst
8—12 p.m.	Iron steam pipe on auxiliary line 90 Italian tons fresh water supplied Turbines made ready for orders
12—4 a.m.	A.M. Date Coal used from 10-0 A.M. Thursday to leaving Messina Friday
4—8 a.m.	Thursday 5 Tons 10-0 A.M. to 12-0 P.M. Friday 5 Tons 12-0 P.M. to 10 Tons
8 a.m.—NOON	

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	886	4	—	—	17	12	164	13	12	11	569	—					
DAYS CONSUMPTION	26	15	—	—	—	10	4	17	—	8	32	10					
CARRIED FORWARD	912	19	—	—	18	2	169	10	12	19	536	10					

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 1

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE: Steam Stresser Boilers	BOILER STEAM PRESSURE: Before Man'ivre Valve	BOILER STEAM: Temp°	STEAM PRESSURES: H.P. Ahead Inlet	STEAM PRESSURES: H.P. Second Expansion	STEAM PRESSURES: H.P. Exhaust	STEAM PRESSURES: L.P. Inlet	STEAM PRESSURES: EJECTORS Forward	STEAM PRESSURES: EJECTORS Aft	STEAM PRESSURES: Gland Steam Press	VACUUM: Guage	VACUUM: Kenoto Meter	GAROMETER
Noon–4 p.m.	3rd													
4–8 p.m.	2nd	175	160	442	132	90	—	—	—	175	1¼	27	—	—
8–12 p.m.	4th	175	160	448	135	99	—	—	—	175	1¼	27½	—	—
12–4 a.m.	3rd	170	155	439	128	84	—	—	—	170	1¼	27	—	—
4–8 a.m.	2nd	170	160	440	128	84	—	—	—	170	1¼	27	—	—
8 a.m.–Noon	4th	175	160	446	135	98	—	—	—	175	1¼	27½	—	

	OIL PRESSURES: Pump Discharge	OIL PRESSURES: Cooler Outlet	OIL PRESSURES: Bearings Mean	OIL PRESSURES: Main Thrust	OIL TEMPERATURES: Cooler Inlet	OIL TEMPERATURES: Cooler Outlet	TEMPERATURES: Eng Room	TEMPERATURES: Stoke hold	TEMPERATURES: Sea	TEMPERATURES: Dissch	TEMPERATURES: L.P. Exhaust Steam	TEMPERATURES: H.P. L.P. Air Pump Wet	TEMPERATURES: H.P. L.P. Air Pump Dry	TEMPERATURES: Filter	TEMPERATURES: Feed to Boiler
Noon–4 p.m.															
4–8 p.m.	27	—	3	—	126	110	—	—	—	—		132	125	115	205
8–12 p.m.	27	—	3	—	128	108	118	90	72	103	—	132	125	120	207
12–4 a.m.	25	—	3	—	126	112	115	86	72	104	—	132	125	120	206
4–8 a.m.	26	—	3	—	124	109	118	88	70	108	—	132	124	118	206
8 a.m.–Noon	27	—	3	—	129	116	124	90	73	104	—	136	126	122	208

	REVOLUTIONS: MAIN SHAFT Counter	REVOLUTIONS: MAIN SHAFT Per Watch	REVOLUTIONS: MAIN SHAFT Per Min	REVOLUTIONS: Main Circg Pump	REVOLUTIONS: Oil Cooler Pump	DOUBLE STROKES: FEED PUMP Counter	DOUBLE STROKES: FEED PUMP Per Watch	DOUBLE STROKES: FEED PUMP Per Hour	DOUBLE STROKES: Air Pump per Min	DOUBLE STROKES: Oil Pump per Min	AIR PRESSURE: At Fan Casing	AIR PRESSURE: At Air Pits	AIR PRESSURE: At Furnaces
Noon–4 p.m.													
4–8 p.m.	59550	13550	77.4	135		—	—						
8–12 p.m.	78260	19710	82.7	135		—	—	480	—	40	2½	—	—
12–4 a.m.	95800	17540	73.8	135		—	—	480	—	40	2½	—	—
4–8 a.m.	13490	17690	73.2	135		—	—	480	—	40	2½	—	—
8 a.m.–Noon	33630	20140	80.5	135		—	—	480	—	40	2½	—	—

CLEARANCES VERIFIED DAILY: Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING: XXXX REFRIG MACHINERY	EVAPORATOR Port	EVAPORATOR Starbd	ELECTRIC LIGHT Port	ELECTRIC LIGHT Starbd	XXXX DISTILLER Ash	DENSITY OF BOILERS
.013										hrs	mins	106 Bkts.	Port Fwd
+¼	—	¼ F.					130°	16½ hrs.		18	29	3.7 Ton	Star Fwd
													Port Aft
													Star Aft

FROM Messina TOWARDS Gibraltar

WEATHER CONDITIONS	REMARKS Friday June 11th
NOON—4 p.m. Ford 13′—0″ Draft Aft. 19′—0 Mean 16 —0	P.M. Date Steam leveled up on boilers
4–8 p.m.	Stand by 3-40 P.M. Full Ahd 5-45 Pilot left Evap 2 hrs 5-15 P.M. Copper expansion piece broken (the one which
8–12 p.m.	was made in Marseilles) Evap 4 hours
12–4 a.m.	A.M. Date Saturday June 12th Evap 3¼ hrs Ash 35 bkts For'd oil pump slide valve spindle stripped
4–8 a.m.	New spindle being made Evap 3½ hrs Ash 36 bkts. Water on deck Water on deck
8 a.m.—NOON	After peaks pumped out Evap 3½ hrs Ash 35 bkts

COAL CONSUMPTION

	Main Engines Tons	Main Engines Cwts	Refrig Machinery Tons	Refrig Machinery Cwts	Electric Lighting etc Tons	Electric Lighting etc Cwts	Winches and Auxiliaries Tons	Winches and Auxiliaries Cwts	Cooking and Heating Tons	Cooking and Heating Cwts	Total Tons	Total Cwts
	886	4	—	—	17	12	164	13	12	11	569	—
BROUGHT FORWARD	26	15	—	—	—	10	4	17	—	8	32	10
DAYS CONSUMPTION	912	19	—	—	18	2	169	10	12	19	536	10
CARRIED FORWARD												

OILS

Turbine Oil	Engine Oil	Paraffin	Colza	Cylinder

STEAMING TIME Hours	STEAMING TIME Mins	Average Revs Per Min	DISTANCE RUN By Obs	DISTANCE RUN By Obs	DISTANCE RUN Slip Per cent
		79.9	10.6	9.80	
18	29	88630	190.3	183	4.7%

AUXILIARY EXHAUST STEAM

Pressure	Where led to	Feed Measurement
4 lbs.	Main Condr.	1 lb.
	Feed Heater	

R. G. DONALDSON

CHIEF ENGINEER

VOYAGE NO. 1

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE After Stralers	BOILER STEAM PRESSURE Before Man'ture Valve	BOILER STEAM Temp°	STEAM PRESSURES H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Guage	VACUUM Kenoto Meter	BAROMETER
Noon—4 p.m.	3rd	170	160	443	133	93	—	—	—	170	1¼	26	—	—
4—8 p.m.	2nd	175	165	460	134	96	—	—	—	175	1¼	26	—	—
8—12 p.m.	4th	170	160	455	133	93	—	—	—	170	1¼	26	—	—
12—4 a.m.	3rd	170	160	455	132	92	—	—	—	170	1¼	26	—	—
4—8 a.m.	2nd	175	165	452	135	99	—	—	—	175	1¼	26	—	—
8 a.m.—Noon	4th	170	160	460	132	90	—	—	—	170	1¼	26	—	29.7

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L.P. Exhaust Steam	Air Pumps Wet	Air Pumps Dry	Filter	Feed to Boilers
Noon—4 p.m.	26	—	3	—	128	114	116	88	71	103	—	140	130	109	206
4—8 p.m.	26	—	3	—	128	110	114	88	71	102	—	140	132	112	205
8—12 p.m.	26	—	3	—	128	110	114	83	71	104	—	140	130	117	205
12—4 a.m.	26	—	3	—	120	114	116	83	71	108	—	140	130	116	205
4—8 a.m.	27	—	3	—	130	114	118	85	70	110	—	134	124	112	205
8 a.m.—Noon	26	—	3	—	130	114	116	86	72	110	—	140	130	116	205

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	52520	18890	78.7	135		—	—	480	—	42	2¾	—	—
4—8 p.m.	71590	19070	79.4	135		—	—	480	—	42	2¾	—	—
8—12 p.m.	90510	18920	78.9	135		—	—	480	—	42	2¾	—	—
12—4 a.m.	09770	18730	78	135		—	—	480	—	40	2¾	—	—
4—8 a.m.	29600	19830	82	135		—	—	480	—	40	2½	—	—
8 a.m.—Noon	49580	19980	77.7	135		—	—	480	—	42	2¾	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING REFRIG. MACHINERY	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	DISTILLER	DENSITY OF BOILERS
043 +⅛	—	⅛R.					129°	16½ hrs.		24 hrs.		200 Bkts. 7 Ton	Port Fwd / Star Fwd / Port Aft / Star Aft

FROM Messina TOWARDS Gibraltar

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Sat. June 12th
Main Bunkers opened at noon	For'd oil pump valve spindle made & covers jointed Evap 3½ hrs Ash 35 bkts
4—8 p.m.	Evaporator coils scaled Both oil pumps working Evap—Ash 34 bkts
8—12 p.m.	Poor steam & vacuum Evap 2 hrs Ash 36
12—4 a.m.	A.M. Date Sunday June 13th Variable vacuum & steam Evap 3½ hrs Ash 34 bkts
4—8 a.m.	Superheaters blown Oil pipe broken on gear casing Evap 3¼ hrs Ash 29
8 a.m.—NOON	Dynamo changed over Poor steam & vacuum Evap 3½ hrs Ash 32 bkts

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	912	19	—	—	18	2	169	10	12	19	536	10					
DAYS CONSUMPTION	35	6	—	—	—	14	6	10	—	10	43	—					
CARRIED FORWARD	948	5	—	—	18	16	176	—	13	19	493	10					

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		~~79.1~~	~~10.2~~	~~9.29~~		4 lbs.	Main Condr.	1 lb.
							Feed Heater	
24	19	115420	248	226	9.9%			

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 1

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE ~~Main~~ Steamer Boilers	BOILER STEAM PRESSURE Before Manœuvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Gauge	VACUUM Kenoto Meter	BAROMETER
Noon–4 p.m.	3rd	175	160	451	134	96	—	—	—	175	1¼	27	—	—
4–8 p.m.	2nd	175	160	448	136	100	—	—	—	175	1¼	27	—	—
8–12 p.m.	4th	175	160	449	136	102	—	—	—	175	1¼	27	—	—
12–4 a.m.	3rd	175	160	452	127	82	—	—	—	175	1¼	27	—	—
4–8 a.m.	2nd	175	160	450	136	102	—	—	—	175	1¼	27	—	—
8 a.m.–Noon	4th	175	160	450	128	84	—	—	—	175	1¼	27	—	29"-7

	OIL PRESSURES Pump Discharge	OIL PRESSURES Cooler Outlet	OIL PRESSURES Bearings Mean	OIL PRESSURES Main Thrust	OIL TEMPERATURES Cooler Inlet	OIL TEMPERATURES Cooler Outlet	TEMPERATURES Eng Room	TEMPERATURES Stoke hold	TEMPERATURES Sea	TEMPERATURES Disch	TEMPERATURES L.P. Exhaust Steam	TEMPERATURES ~~Air Pumps~~ Wet	TEMPERATURES ~~Air Pumps~~ Dry	TEMPERATURES Filter	TEMPERATURES Feed to Boilers
													Thrust		
Noon–4 p.m.	26	—	3	—	125	113	114	83	70	100	—	140	130	110	202
4–8 p.m.	26	—	3	—	130	114	118	88	72	104	—	140	130	112	206
8–12 p.m.	26	—	3	—	130	116	116	86	74	101	—	140	130	114	208
12–4 a.m.	26	—	3	—	130	114	116	84	70	102	—	140	130	114	208
4–8 a.m.	27	—	3	—	132	116	116	83	70	110	—	140	128	114	208
8 a.m.–Noon	26	—	3	—	130	116	118	88	70	110	—	140	130	118	202

	REVOLUTIONS MAIN SHAFT Counter	REVOLUTIONS MAIN SHAFT Per Watch	REVOLUTIONS MAIN SHAFT Per Min	REVOLUTIONS Main Circ Pump	REVOLUTIONS Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	DOUBLE STROKES FEED PUMP Per Watch	DOUBLE STROKES FEED PUMP Per Hour	DOUBLE STROKES Air Pump per Min	DOUBLE STROKES Oil Pump per Min	AIR PRESSURE At Fan Casing	AIR PRESSURE At Ash Pits	AIR PRESSURE At Furnaces
Noon–4 p.m.	68670	19090	79.5	135	—	—	480	—	40	3	—	—	
4–8 p.m.	88830	20160	84	135	—	—	480	—	40	3	—	—	
8–12 p.m.	09390	20560	85.6	135	—	—	480	—	40	3	—	—	
12–4 a.m.	29790	17400	72.5	135	—	—	480	—	40	3	—	—	
4–8 a.m.	47030	20240	85.1	135	—	—	480	—	40	3	—	—	
8 a.m.–Noon	69080	13950	73.4	135	—	—	480	—	40	3	—	—	

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING ~~MAIN~~ MACHINERY P.	EVAPORATOR Port	EVAPORATOR Starbd	ELECTRIC LIGHT Port	ELECTRIC LIGHT Starbd	~~DISTILLER~~ Ash	DENSITY OF BOILERS
.018												206 Bkts	Port Fwd
+⅛	—	1⅛					132°	17½ hrs.		24 hrs.		7.2 Ton	Star Fwd
							Piston Temp.						Port Aft
													Star Aft

FROM Messina TOWARDS Gibraltar

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date June 13th Evap 3½ hrs Ash 36
4—8 p.m.	Evap 3½ hrs Ash 36
8—12 p.m.	Evap 3½ hrs Ash 36
12—4 a.m.	A.M. Date June 14th Evap 3½ hrs Ash 36
4—8 a.m.	Evap 2½ hrs Ash 30
8 a.m.—NOON Stopped 50 mins	Evaporator coils scaled Turbines stopped to repair broken oil pipe on gear casing Evap 1 hr Ash 34

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	948	5	—	—	18	16	176	—	13	9	493	10					
DAYS CONSUMPTION	36	6	—	—		14	6	10	—	10	43	—					
CARRIED FORWARD	983	11	—	—	19	10	182	10	13	19	450	10					

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		79.1	10.2	8.96		4 lbs.	Main Condenser ~~Feed Heater~~	1 lb.
23	27	111400	239.1	210	20.5%	CHIEF ENGINEER ~~R. G. DONALDSON~~		

VOYAGE NO. 1

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE After Burner	BOILER STEAM PRESSURE Before Manœuvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	EJECTORS Aft	G'land Steam Press	VACUUM Gauge	VACUUM Kenyon Meter	BAROMETER
Noon–4 p.m.	3rd	170	155	450	131	88	—	—	—	170	1¼	27	—	—
4–8 p.m.	2nd	175	160	454	136	100	—	—	—	175	1¼	27	—	—
8–12 p.m.	4th	175	160	452	135	98	—	—	—	175	1¼	27	—	—
12–4 a.m.	3rd	175	160	446	136	100	—	—	—	175	1¼	27	—	—
4–8 a.m.	2nd	175	160	446	136	102	—	—	—	175	1¼	27	—	—
8 a.m.–Noon	4th	175	160	446	134	96	—	—	—	175	1¼	27	29	—

	OIL PRESSURES Pump Discharge	OIL PRESSURES Cooler Outlet	OIL PRESSURES Bearings Mean	OIL PRESSURES Main Thrust	OIL TEMPERATURES Cooler Inlet	OIL TEMPERATURES Cooler Outlet	TEMPERATURES L.P. Eng Room	Stoke hold	Sea	Disch	L.P. Exhaust Steam	Air Pump Wet	Air Pump Dry	Filter	Feed to Boilers
Noon–4 p.m.	26	—	3	—	130	118	120	90	70	105	—	142	132	111	206
4–8 p.m.	27	—	3	—	132	118	118	88	72	105	—	142	130	116	205
8–12 p.m.	27	—	3	—	130	118	118	88	71	106	—	142	132	116	205
12–4 a.m.	26	—	3	—	128	112	117	83	70	113	—	140	130	102	200
4–8 a.m.	27	—	3	—	128	112	117	84	75	103	—	140	128	110	205
8 a.m.–Noon	26	—	3	—	128	112	118	84	80	102	—	140	130	106	201

	REVOLUTIONS MAIN SHAFT Counter	REVOLUTIONS MAIN SHAFT Per Watch	REVOLUTIONS MAIN SHAFT Per Min	REVOLUTIONS Main Circg Pump	REVOLUTIONS Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	DOUBLE STROKES FEED PUMP Per Watch	DOUBLE STROKES FEED PUMP Per Hour	DOUBLE STROKES Air Pump per Min	DOUBLE STROKES Oil Pump per Min	AIR PRESSURE At Fan Casing	AIR PRESSURE At Ash Pits	AIR PRESSURE At Furnaces
Noon–4 p.m.	79380	18400	76·6	135		—	—	180	—	40	3	—	—
4–8 p.m.	98120	20040	83·5	135		—	—	180	—	40	3	—	—
8–12 p.m.	17550	19430	80·9	135		—	—	180	—	40	3	—	—
12–4 a.m.	37950	20100	83·7	135		—	—	180	—	40	3	—	—
4–8 a.m.	58200	20250	84·3	135		—	—	180	—	40	3	—	—
8 a.m.–Noon	78820	20620	79·9	135		—	—	180	—	40	3	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING MACHINERY	EVAPORATOR Port	EVAPORATOR Starbd	ELECTRIC LIGHT Port	ELECTRIC LIGHT Starbd	DISTILLER	DENSITY OF BOILERS
.043												190 Bkts.	Port Fwd
+1/8	—	1/8 L.	—	—	—		130°	17½ hrs.		24 hrs.		6.6 Ton	Star Fwd
													Port Aft
													Star Aft

FROM Messina TOWARDS Gibraltar

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date June 14th Star'd bunker winch levers secured Evap 3½ hrs Ash 36
4—8 p.m.	Evap 3¾ hrs Ash 29
8—12 p.m.	Stowaway found in bunker at 11-0 P.M. Aux. Condr. air pump end examined Evap 2½ hrs Ash 34
12—4 a.m.	A.M. Date June 15th Evap 3 hrs Ash 35 hrs
4—8 a.m.	5th Engr. sick Variable vacuum Evap 3½ Ash 29 bkts
8 a.m.—NOON	5 barrels oil pumped in gravity tank Lower aft peak pumped out Evap 3½ hrs Ash 32 bkts

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	882	11	—	—	19	10	82	10	13	19	450	10
DAYS CONSUMPTION	35	6	—	—	—	11	6	10	—	10	43	—
CARRIED FORWARD	1018	17	—	—	20	4	189	—	14	9	407	10

OILS

TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure 4 lbs.	Where led to Main Condr. & Feed Heater	Feed Heater Press 1 lb.
24	16	18830	257.2	200	22.6%			

R. G. DONALDSON
CHIEF ENGINEER

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE			STEAM PRESSURES							VACUUM		BAROMETER
		Donkey Boilers	Before Man'uvre Valve	Temp°	H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	Quage	Kenoto Meter	
Noon–4 p.m.	3rd	175	160	442	135	99	—	—	—	175	1¼	26½	—	—
4–8 p.m.	2nd	175	160	448	135	99	—	—	—	175	1¼	27	—	—
8–12 p.m.	4th	175	160	446	136	102	—	—	—	175	1¼	27	—	—
12–4 a.m.	3rd	175	160	452	133	97	—	—	—	175	1¼	27	—	—
4–8 a.m.	2nd	175	160	450	135	99	—	—	—	175	1¼	27	—	—
8 a.m.–Noon	4th	175	160	454	134	98	—	—	—	175	1¼	27	—29·70	—

	OIL PRESSURES				OIL TEMPERATURES		TEMPERATURES								
	Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	Cooler Inlet	Cooler Outlet	Eng Room	Stoke hold	Sea	Disch	L.P. Exhaust Steam	H.P. L.P. Thrust Wet	H.P. L.P. Thrust Dry	Filter	Feed to Boiler
Noon–4 p.m.	26	—	3	—	133	118	118	84	70	108	—	142	130	112	206
4–8 p.m.	27	—	3	—	132	117	120	86	70	110	—	140	128	113	204
8–12 p.m.	27	—	3	—	136	120	120	88	72	112	—	144	134	112	205
12–4 a.m.	27	—	3	—	134	118	118	84	68	102	—	140	132	114	208
4–8 a.m.	27	—	3	—	130	116	117	82	70	108	—	140	132	114	208
8 a.m.–Noon	27	—	3	—	130	118	114	81	66	98	—	140	134	112	208

	REVOLUTIONS					DOUBLE STROKES					AIR PRESSURE		
	MAIN SHAFT Counter	MAIN SHAFT Per Watch	MAIN SHAFT Per Min	Main Circg Pump	Oil Cooler Pump	FEED PUMP Counter	FEED PUMP Per Watch	FEED PUMP Per Hour	Air Pump per Min	Oil Pump per Min	At Fan Casing	At Air Pipe	At Funnel
Noon–4 p.m.	97660	19810	82.6	135		—	—	480	—	40	3	—	—
4–8 p.m.	17480	19820	82.5	130		—	—	480	—	40	3	—	—
8–12 p.m.	38140	20660	86	130		—	—	480	—	40	3	—	—
12–4 a.m.	58170	20030	83.4	130		—	—	480	—	40	3	—	—
4–8 a.m.	78800	20630	85.9	135		—	—	480	—	40	3	—	—
8 a.m.–Noon	99930	21130	84.5	135		—	—	480	—	40	3	—	—

CLEARANCES VERIFIED DAILY						SHAFT HORSE POWER	HOURS WORKING					DENSITY OF BOILERS
Finger Piece Reading			Finger Piece Index				MAIN MACHINERY	EVAPORATOR		ELECTRIC LIGHT	DISTILLER	
HP	IP	LP	HP	IP	LP		H.P. & L.P. Pinion Temp.	Port	Starbd	Port	Starbd	Ash
.043												Port Fwd
+1/4		1/4F					130°	14½ hrs.		24 hrs.		186 Bkts. Starb Fwd
												6.5 Ton Port Aft
												Starb Aft

FROM Messina TOWARDS Gibraltar

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date June 15th 5th Engr. sick Evap 3¼ hrs Ash 34 bkts
4—8 p.m.	5th Engr. sick Evap 3 hrs Ash 30 bkts
8—12 p.m.	 Evap 3 hrs Ash 32 bkts
12—4 a.m.	A.M. Date ~~June 16th~~ Evap 3 hrs Ash 32 bkts
4—8 a.m.	 Evap 2 hrs Ash 29 bkts
8 a.m.—NOON Weir pumping from condenser till arrival in Gibraltar	5th Engr on duty scaling evaporator condensate pump constantly stopping Ash 30 bkts

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	1018	17	—	—	20	4	189	—	14	9	407	10					
DAYS CONSUMPTION	35	6	—	—	—	14	6	10	—	10	43	—					
CARRIED FORWARD	1054	3	—	—	20	18	195	10	14	19	364	10					

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		83.8	10.8	8.03		4 lbs.	Main Condenser ~~Feed Heater~~	1½ lbs.
24	16	122110	262	195	25.9%			

CHIEF ENGINEER

VOYAGE NO 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE			STEAM PRESSURES				EJECTORS			VACUUM		BAROMETER
		XXX Boilers Boilers	Before Man'uvre Valve	Temp°	H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	Forward	Aft	Gland Steam Press	Guage	Kenyon Meter	
Noon–4 p.m.	3	175	160	448			—	—	—	175	1¼	27	—	—
4–8 p.m.														
8–12 p.m.														
12–4 a.m.														
4–8 a.m.														
8 a.m.–Noon													29.76	

	OIL PRESSURES				OIL TEMPERATURES		TEMPERATURES L.P.								
	Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	Cooler Inlet	Cooler Outlet	Eng Room	Stoke hold	Sea	Disch	L.P. Exhaust Steam	XXXXXX Wet	Dry	Filter	Feed to Boilers
Noon–4 p.m.	26	—	3	—	132	117	114	84	66	98	—	140	134	110	202
4–8 p.m.															
8–12 p.m.															
12–4 a.m.															
4–8 a.m.															
8 a.m.–Noon															

	REVOLUTIONS					DOUBLE STROKES					AIR PRESSURE		
	MAIN SHAFT			Main Circg Pump	Oil Cooler Pump	FEED PUMP			Air Pump per Min	Oil Pump per Min			
	Counter	Per Watch	Per Min			Counter	Per Watch	Per Hour					
Noon–4 p.m.	05050	5120	81.4	135		—	—	480	—	40	3	—	—
4–8 p.m.													
8–12 p.m.													
12–4 a.m.													
4–8 a.m.													
8 a.m.–Noon													

CLEARANCES VERIFIED DAILY						SHAFT HORSE POWER	XXXX REFRIG MACHINERY	HOURS WORKING				XXXX DISTILLER	DENSITY OF BOILERS
Finger Piece Reading			Finger Piece Index					EVAPORATOR		ELECTRIC LIGHT			
HP	IP	LP	HP	IP	LP			Port	Starbd	Port	Starbd		Port Fwd
.043 +⅛	—	⅛F											Star Fwd
													Port Aft
													Star Aft

FROM Messina **TOWARDS** Gibraltar

WEATHER CONDITIONS	REMARKS
Fore'd 13′—3″	
NOON—4 p.m.	P.M Date June 16th
Draft Aft 15′—6″	Arriving Gib Stand by 2-1 Half Ahd 2-8 Slow 2-9
Mean 14′—4½″	Stop 2-13 F. W. E. 2-35 P.M. 315 Full Ahd 3-35
4–8 p.m.	F. W. E. & moored to wharf
Coal Weighed	Commenced taking bunkers
periodically	4th & 5th Engrs. tallying coal, till 6-0 P.M.
8–12 p.m.	Anchor watch. Condensate pump gland re-
	packed & rotor adjusted. Top brass reversed
12–4 a.m.	A.M. Date June 17th
10 oil barrels sold	Smoke boxes cleaned out each watch
Received £2-10-10	3rd Engr sick. 4th on till 2-0 A.M. 5th on 2 to 4-0 A.M.
	Evaporator stop valve spindle broken
4–8 a.m.	Spindle squared & wheel fitted
	Steering engine top end repaired and back
300 tons coal	brass secured. 4th & 5th tallying coal
8 a.m.—NOON	3rd Engr opening out ready for moving
received	

COAL CONSUMPTION

	Main Engines Tons	Main Engines Cwts	Refrig Machinery Tons	Refrig Machinery Cwts	Electric Lighting etc Tons	Electric Lighting etc Cwts	Winches and Auxiliaries Tons	Winches and Auxiliaries Cwts	Cooking and Heating Tons	Cooking and Heating Cwts	Total Tons	Total Cwts
BROUGHT FORWARD	1054	3	—	—	20	18	195	10	14	19	364	10
DAYS CONSUMPTION	2	13	—	—	—	1	—	15	—	1	3	10
CARRIED FORWARD	1056	16	—	—	20	19	196	5	15	—	361	—

OILS

Turbine Oil	Engine Oil	Paraffin	Colza	Cylinder

STEAMING TIME Hours	Mins	Average Revs Per Min	DISTANCE RUN By Engines	By Ship	Slip Per cent
		81.4	10.5	8.78	
2	3	5120	21.5	18	17%

AUXILIARY EXHAUST STEAM

Pressure	Where fed to	Feed Heater Press
—	Auxiliary Condenser	—

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE: After Steamer	BOILER STEAM PRESSURE: Before Man'uvre Valve	BOILER STEAM: Temp°	STEAM PRESSURES: H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS: Forward	EJECTORS: Aft	Gland Steam Press	VACUUM: Guage	VACUUM: Kenoto Meter	BAROMETER
		XXX Boilers												
Noon–4 p.m.	3rd	170	160	444	125	82	—	—	—	170	1¼	26	—	—
4–8 p.m.	2nd	170	160	446	131	90	—	—	—	170	1¼	26	—	—
8–12 p.m.	4th	170	160	445	126	84	—	—	—	170	1¼	26	—	—
12–4 a.m.	3rd	170	160	442	127	85	—	—	—	170	1¼	26	—	—
4–8 a.m.	2nd	170	160	444	130	88	—	—	—	170	1¼	26	—	—
8 a.m.–Noon	4th	170	160	448	124	82	—	—	—	170	1¼	26	—29"	82

	OIL PRESSURES: Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES: Cooler Inlet	Cooler Outlet	TEMPERATURES: Eng Room	Stoke hold	Sea	Disch	LP Exhaust Steam	H.P. L.P. XXXXX Thrust: Wet	Dry	Filter	Feed to Boilers
Noon–4 p.m.	27	—	3	—	126	110	114	82	64	94	—	137	126	112	202
4–8 p.m.	27	—	3	—	130	114	110	80	64	98	—	140	132	114	206
8–12 p.m.	27	—	3	—	128	114	108	80	66	102	—	138	132	114	204
12–4 a.m.	27	—	3	—	128	112	102	76	68	100	—	140	130	112	208
4–8 a.m.	27	—	3	—	127	110	108	82	66	100	—	138	130	114	208
8 a.m.–Noon	27	—	3	—	128	112	106	80	66	100	—	138	130	112	206

	REVOLUTIONS: MAIN SHAFT: Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES: FEED PUMP: Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE: At Fan Casing	At Ash Pits	At Furnaces
Noon–4 p.m.	29300	17600	76.5	130		—	—	480	—	42	2¾	—	—
4–8 p.m.	49360	20060	83.5	130		—	—	480	—	42	2½	—	—
8–12 p.m.	67940	18580	77.4	130		—	—	480	—	42	2½	—	—
12–4 a.m.	86700	18760	78.1	130		—	—	480	—	42	2¾	—	—
4–8 a.m.	06280	19580	81.5	130		—	—	480	—	42	3	—	—
8 a.m.–Noon	25630	19350	75.9	130		—	—	480	—	42	3	—	—

CLEARANCES VERIFIED DAILY: Finger Piece Reading: HP	IP	LP	Finger Piece Index: HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING: XXXX BEARING MACHINERY	EVAPORATOR: Port	Starbd	ELECTRIC LIGHT: Port	Starbd	XXXX DISTILLER Ash	DENSITY OF BOILERS: Port Fwd	Star Fwd	Port Aft	Star Aft
.043							H. P. & L. P. Pinion Temp.					200 Bkts.				
+⅛	—	⅛F					130°	20	hrs.	23	33	7.1 Ton				

FROM Gibraltar TOWARDS Lisbon

WEATHER CONDITIONS	REMARKS
NOON—4 p.m. For'd 15'—0" Draft Aft 16'—6" Mean 15'—9"	P.M. Date Thurs. June 17th Leaving "Gib" Stb by 11-44 Ast Slow 11-45 ~~Stop 11-46 Ast slow 11-52 Stop 11-51 Ahd Full 12-0~~ Stop 12-07 (PILOT) Ah Full 12-9 P.M. Evap 3½ hrs Ash 27
4—8 p.m.	Poor vacuum, both expansion pieces cracked, drawing air Evap 3¾ hrs. Ash 28 bkts.
8—12 p.m. Ashes weighed of Gib coal 80 lb. aver.	Evap 2¾ hrs. Ash 35 bkts. Poor steam & vacuum
12—4 a.m.	A.M. Date Friday June 18th Poor steam & vacuum Evap 4 hrs. Ash 35 bkts.
4—8 a.m.	Superheaters cleaned Poor steam & vacuum Evap 4 hrs Ash 33 bkts
~~Fwd to NOON~~ "Gib" 361 Received " 400 761 Used 15 756 Tons	Evaporator coil seas scaled Windlass valve spindle glands packed Evap 2 hrs Ash 34 bkts Poor vacuum

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	CO-Z4	CYLINDER
BROUGHT FORWARD	1056	16	—	—	20	19	196	5	15	—	756						
DAYS CONSUMPTION	35	6	—	—		14	6	10	—	10	43						
CARRIED FORWARD	1092	2	—	—	21	13	202	15	15	10	713						

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		80.6	10.4	7.56		3 lbs.	Main Condr. & Feed Heater	1½ lbs.
23	33	13930	244.9	178	27.8%			

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomaing"

WATCH	ENGINEERS ON DUTY	BOILER STEAM PRESSURE: Main Stop Valve Boiler	BOILER STEAM PRESSURE: Before Man'uvre Valve	BOILER STEAM: Temp°	STEAM PRESSURES: H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS: Forward	EJECTORS: Aft	Glund Steam Press	VACUUM: Gauge	VACUUM: Kenotometer	BAROMETER
Noon–4 p.m.	3rd	175	165	450	129	87	—	—	—	175	1¼	26	—	—
4–8 p.m.	2nd	175	165	448	131	90	—	—	—	175	1¼	26	—	—
8–12 p.m.	4th	175	165	448	133	92	—	—	—	175	1¼	26	—	—
12–4 a.m.	3rd	175	160	454	125	82	—	—	—	170	1¼	26	—	—
4–8 a.m.	2nd	—	—	—			—	—	—	—	1¼	—	—	—
8 a.m.–Noon	4th						—	—	—	—	1¼		—29"	30

	OIL PRESSURES: Pump Discharge	OIL PRESSURES: Cooler Outlet	OIL PRESSURES: Bearings Mean	OIL PRESSURES: Main Thrust	OIL TEMPERATURES: Cooler Inlet	OIL TEMPERATURES: Cooler Outlet	TEMPERATURES: Eng Room	TEMPERATURES: Stoke hold	TEMPERATURES: Sea	TEMPERATURES: Distn	TEMPERATURES: L.P. Exhaust Steam	TEMPERATURES: XXXX Wet	TEMPERATURES: L.P. Thrust Dry	TEMPERATURES: Filter	TEMPERATURES: Fuel to Boilers
Noon–4 p.m.	27	—	3	—	128	114	106	80	60	102	—	142	132	112	204
4–8 p.m.	27	—	3	—	128	116	116	82	60	106	—	142	130	141	207
8–12 p.m.	27	—	3	—	130	116	116	80	60	104	—	142	132	112	206
12–4 a.m.	27	—	3	—	130	116	114	84	64	98	—	142	130	112	206
4–8 a.m.	27	—	3	—	130	116	118	86	64	100	—	142	130	116	206
8 a.m.–Noon	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

	REVOLUTIONS: MAIN SHAFT Counter	REVOLUTIONS: MAIN SHAFT Per Watch	REVOLUTIONS: MAIN SHAFT Per Min	REVOLUTIONS: Main Circg Pump	REVOLUTIONS: Oil Cooler Pump	DOUBLE STROKES: FEED PUMP Counter	DOUBLE STROKES: FEED PUMP For Watch	DOUBLE STROKES: FEED PUMP For Hour	DOUBLE STROKES: Air Pump per Min	DOUBLE STROKES: Oil Pump per Min	AIR PRESSURE: Air Eng Rm Cont	AIR PRESSURE: Air Aux Pmp	AIR PRESSURE: Air Furnaces
Noon–4 p.m.	45040	19410	80.8	140	—	—	—	180	—	40	3	—	—
4–8 p.m.	65290	20550	86	140	—	—	—	180	—	40	3	—	—
8–12 p.m.	85850	21160	88	140	—	—	—	180	—	40	3	—	—
12–4 a.m.	05220	18370	76.5	140	—	—	—	180	—	40	3	—	—
4–8 a.m.	—	—	—	—	—	—	—	—	—	—	—	—	—
8 a.m.–Noon													

CLEARANCES VERIFIED DAILY: Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP
.043					
4½		⅛F			

SHAFT HORSE POWER H.P.

XXXX HOURS WORKING: Piston Temp.	EVAPORATOR: Port	EVAPORATOR: Starbd	ELECTRIC LIGHT: Port	ELECTRIC LIGHT: Starbd	XXXX DISTANCE
133	16	hrs.	17+47 hrs. mins.		133 Bkts. 4.7 Ton

DENSITY OF BOILERS	
Port Fwd	
Star Fwd	
Port Aft	
Star Aft	

FROM Gibraltar TOWARDS Lisbon

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M Date Friday June 18th
	Evap 4 hrs Ash 36
4—8 p.m.	
	Evap 4 hrs Ash 33
8—12 p.m. Fresh northerly winds—mod sea	
	Evap 4 hrs Ash 30
12—4 a.m.	A.M. Date Sat June 19th
	Evap 4 hrs Ash 31
	Half ahd 3-9 At Full 3-45 AM.
4—8 a.m. For'd 14'—6" Draft Aft. 16'—2" Mean 15'—4"	Arriving Lisbon & anchored in river
	Sth by 5-5 Slow 5-38 Stop 5-44 Various
	Movements till anchored & F. W. E 7-0 AM
8 a.m.—NOON	Steam blown off stard boiler & fires drawn
	making ready for sealing

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	1062	2	—	—	21	13	202	15	15	10	715						
DAYS CONSUMPTION	27	3	—	—	—	10	5	—	—	7	33						
CARRIED FORWARD	1119	5	—	—	22	03	207	15	15	17	680						

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		74.5	9.6	7.14		3 lbs.	Main Condr. & Feed Heater	1½ lbs.
17	47	79590	170.7	127	26%			

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 1

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS CHARGE	BOILER STEAM PRESSURE After Strainer	BOILER STEAM PRESSURE Before Man'vre Valve	BOILER STEAM Temp'	STEAM PRESSURES H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Gauge	VACUUM Kenotometer	BAROMETER
Noon–4 p.m.					Saturday June 19th									
4–8 p.m.														
8–12 p.m.	All firemen finished noon, orders for all to turn out													
12–4 a.m.	to scale stard boiler on Sunday. Fires drawn & steam													
4–8 a.m.	blown off stard boiler & man hole doors knocked in													
8 a.m.–Noon	Engineers on watches.													

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng. Room	Stoke hold	Sea	Dischr.	L.P. Exhaust Steam	Air Pumps Wet	Air Pumps Dry	Filter	Fed to Boilers
Noon–4 p.m.	Cargo working all winches all night Dynamos running														
4–8 p.m.	Sunday June 20th														
8–12 p.m.	Cargo commenced 6-0 A.M. Firemen started 7-0 AM.														
12–4 a.m.	Furnace crowns scaled. Tube plate & boilers brushed														
4–8 a.m.	down, baffle & zinc plates fitted. Boiler washed out,														
8 a.m.–Noon	doors jointed and pumped up.														

	REVOLUTIONS MAIN SHAFT Counter	MAIN SHAFT For Watch	MAIN SHAFT Per Min	Main Circ'g Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	FEED PUMP Per Watch	FEED PUMP For Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE Air For Ctrl'g	Air Auxl Pmps	Air For Starting
Noon–4 p.m.	Orders for steam 7-0 PM Monday												
4–8 p.m.	Received 110 tons water for deck & engine room												
8–12 p.m.	5th engr ankle examined by doctor unit to proceed												
12–4 a.m.	to sea, an old wound commencing												
4–8 a.m.													
8 a.m.–Noon													

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING REFRIG MACHINERY	EVAPORATOR Port	EVAPORATOR Starbd	ELECTRIC LIGHT Port	ELECTRIC LIGHT Starbd	DISTILLER	DENSITY OF BOILERS
													Port Fwd
													Star Fwd
													Port Aft
													Star Aft

FROM at Lisbon TOWARDS

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date
	Fires set away and boilers circulated during night. 2 copper oil pipes sent for
4—8 p.m.	repair. Ceased cargo at 7-15 PM. Dynamo running all night.
	Monday June 21st
8 AM. Commenced cargo. Steam on winches	All smoke box doors lifted, cleaned out and air pressure leaks cemented up. Fan engine changed over. Flexible hose fit-
0—4 a.m.	A.M. Date
cargo for the night 7-15 PM. Finished	ted on repair oil pipe. Leaky boiler tube in centre box. Centre boiler caulked and
4—8 a.m.	made tight. 2nd Engr not capable of making tube tight, through incapacity &
	drink, so sent him out of Engine room &
8 a.m.—NOON Self & 4th Engr on 6 hr Watch Dynamo running all night	took his watch over. 3rd Engr collapsed, not able to stand heat, said it was impossible to continue voyage

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD																	
DAYS CONSUMPTION																	
CARRIED FORWARD																	

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Ship Per cent	Pressure	Where led to	Feed Heater Press

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS CHARGE	BOILER STEAM			STEAM PRESSURES							VACUUM		BAROMETER
		PRESSURE			H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS		Gland Steam Press	Guage	Kenoto Meter	
		After Strainer	Before Man'uvre Valve	Temp'					Forward	Aft				
Noon–4 p.m.					~~Tuesday June 22nd~~									
4–8 p.m.														
8–12 p.m.		Cargo being worked all day. 6-0 A.M. Commenced												
12–4 a.m.		Whistle joint blowing on stard boiler, clip made for												
4–8 a.m.		same. Evaporator coils scaled and boxed up. Found												
8 a.m.–Noon		hood broken and lying on evaporator bottom												

	OIL PRESSURES				OIL TEMPERATURES		TEMPERATURES								
	Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	Cooler Inlet	Cooler Outlet	Eng Room	Stoke hold	Sea	Disch	L.P. Exhaust Steam	Air Pumps Wet	Air Pumps Dry	Filter	Feed to Boilers
Noon–4 p.m.															
4–8 p.m.															
8–12 p.m.															
12–4 a.m.															
4–8 a.m.															
8 a.m.–Noon															

Blank flange made for flange on burst iron pipe auxiliary line. Dinner hour, steam shut off. Pipe taken down and blank flange jointed so as to be able to continue cargo. Pipe taken to repair shop and brazed. Working rejointing pipe at 7-0 PM.

	REVOLUTIONS					DOUBLE STROKES					AIR PRESSURE		
	MAIN SHAFT			Main Circg Pump	Oil Cooler Pump	FEED PUMP			Air Pump per Min	Oil Pump per Min	At Fan Casing	At Asht Pits	At Furnaces
	Counter	Per Watch	Per Min			Counter	Per Watch	Per Hour					
Noon–4 p.m.													
4–8 p.m.													
8–12 p.m.													
12–4 a.m.													
4–8 a.m.													
8 a.m.–Noon													

All air leaks on fan engine casing & round
Boiler smoke boxes pointed up
50 Tons Water received
2nd & 3rd Engrs at British Consul
Dynamo stopped & steam shut off 7-0 PM.

CLEARANCES VERIFIED DAILY						SHAFT HORSE POWER	HOURS WORKING					DENSITY OF BOILERS	
Finger Piece Reading			Finger Piece Index				REFRIG MACHINERY	EVAPORATOR		ELECTRIC LIGHT		DISTILLER	
HP	IP	LP	HP	IP	LP			Port	Starbd	Port	Starbd		Port Fwd
													Star Fwd
													Port Aft
													Star Aft

FROM at Lisbon TOWARDS

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M Date Wed. June 23rd
4–8 p.m.	Cargo commenced 7-0 A.M. Trunnuits put on all leaky studs &c on Gear Casing For'd fan engine glands packed
8–12 p.m.	No. 6 bilges pumped out. Sounding pipes choked. Watches commenced 8-0 A.M. All ashes heaved Portable light in E. R. repaired 2nd & 3rd Engrs paid off. Impossible to get
12–4 a.m.	A.M Date Engr. till tomorrow. All auxiliaries tried & their steam shut off
4–8 a.m.	Thursday June 24th For'd peak pumped out Steam ordered for 12-0 noon
8 a.m.—NOON	Boilers leveled & turn taken 2nd & 3rd Portuguese engrs arrived

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD												
DAYS CONSUMPTION												
CARRIED FORWARD												

OILS	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 1

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE: Boilers (Strainer)	BOILER STEAM PRESSURE: Before Manœuvre Valve	BOILER STEAM: Temp°	STEAM PRESSURES: H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS: Forward	EJECTORS: Aft	Gland Steam Press	VACUUM: Gauge	VACUUM: Kenoto Meter	BAROMETER
Noon–4 p.m.	3rd						—	—	—		1¼		—	—
4–8 p.m.	2nd	165	150	432	118	72	—	—	—	165	1¼	16	—	—
8–12 p.m.	4th	165	150	436	127	85	—	—	—	165	1¼	16	—	—
12–4 a.m.	3rd	165	150	432	123	80	—	—	—	165	1¼	20	—	—
4–8 a.m.	2nd	165	150	430	125	82	—	—	—	165	1¼	20	—	—
8 a.m.–Noon	4th	165	150	430	124	82	—	—	—	165	1¼	17	—29	—29

	OIL PRESSURES: Pump Discharge	OIL PRESSURES: Cooler Outlet	OIL PRESSURES: Bearings Mean	OIL PRESSURES: Main Thrust	OIL TEMPERATURES: Cooler Inlet	OIL TEMPERATURES: Cooler Outlet	TEMPERATURES: Eng Room	TEMPERATURES: Blake hold	TEMPERATURES: Sea	TEMPERATURES: Disch	TEMPERATURES: L.P. Exhaust Steam	TEMPERATURES: H.P. & L.P. Air Pumps Wet	TEMPERATURES: H.P. & L.P. Air Pumps Dry	TEMPERATURES: Thrust	TEMPERATURES: Filter	TEMPERATURES: Feed to Boilers
Noon–4 p.m.		—		—							—					
4–8 p.m.	26	—	2½	—	124	110	98	80	64	90	—	124	114	100	198	
8–12 p.m.	26	—	2½	—	124	110	98	80	64	90	—	124	114	102	202	
12–4 a.m.	27	—	2½	—	121	110	102	80	63	87	—	126	115	104	205	
4–8 a.m.	27	—	2½	—	124	110	103	80	63	87	—	126	115	106	205	
8 a.m.–Noon	—	—	—	—	124	110		Various			—					

	REVOLUTIONS: MAIN SHAFT Counter	MAIN SHAFT Per Watch	MAIN SHAFT Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES: FEED PUMP Counter	FEED PUMP Per Watch	FEED PUMP Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE: At Fan Casing	At Ash Fills	At Furnaces
Noon–4 p.m.	07580	at 6 p.m.				—	—		—				
4–8 p.m.	13590	6010	66.8		40	—	—		—				
8–12 p.m.	32350	18730	78.2		40	—	—	480	—	40			
12–4 a.m.	50270	17920	74.7		40	—	—	480	—	30			
4–8 a.m.	68550	18280	76.2		40	—	—	480	—	30			
8 a.m.–Noon	75300	6750	75.1		40	—	—	480	—	30			

Opened Out Full

CLEARANCES VERIFIED DAILY: Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING: MAIN MACHINERY H.P. & L.P. Pinion Temp.	EVAPORATOR Port	EVAPORATOR Starbd	ELECTRIC LIGHT Port	ELECTRIC LIGHT Starbd	DISTILLER Ash	DENSITY OF BOILERS
018													Port Fwd
+⅛	1sF.									hrs. mins.		65 Bkts	Star Fwd
							118°	8 hrs		15–8		2.2 Ton	Port Aft
													Star Aft

Ash Weighed 78 lb. per Bucket, Gibraltar Coal.

FROM Lisbon TOWARDS New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m. For'd 16'—0" Draft Aft. 16'—8" Mean 16'—4"	Coal arriving Lisbon 680 Date Thurs. June 24th " used in " 29 tons Remaining 651
4—8 p.m.	Stand by 4-15 P.M. 4-50 Slow Ahd 6-30 discharged pilot & Full Speed Poor vacuum, Leaky expansion pieces
Moderate Northerly winds & Sea	" " " " " Evap 4 hrs Ash 33 bkts
12—4 a.m.	A.M. Date Friday June 25th Poor vacuum & steam Evap 4 hrs Ash 32 bkts
4—8 a.m.	Stopped 2 hrs & 30 mins Stopped 9-10 Full 11-10 Stop 11-30 Full Ahd 12-35
8 a.m.—NOON After going Full Ahd for 5 mins H.P. Sight glass broke in pieces. 30 galls oil lost	Turbines stopped. Broken expansion pipes taken off and H.P. Astern Exhaust Steam pipes blanked off No spare sight glasses, so wrapped same with canvas

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	119	5	—	—	22	3	207	15	15	17	651						
DAYS CONSUMPTION	23	2	—	—	—	11	5	—	—	7	29						
CARRIED FORWARD	142	7	—	—	22	14	212	15	16	4	622	10					

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		74.5	9.6	87		3 lbs.	Main Condr. & Feed Heater	1 lb.
15	8	67720	145.2	5.75	40.6%	CHIEF ENGINEER R. G. DONALDSON		

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE After Strainer Boilers	Before Man'uvre Valve	Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	Aft	Gland Steam Press	VACUUM Guage	Kenoto Meter	BAROMETER
Noon—4 p.m.	3rd	165	150	433	123	80	—	—	—	165	1¼	28	—	—
4—8 p.m.	2nd	165	150	440	125	82	—	—	—	165	1¼	28	—	—
8—12 p.m.	4th	165	150	426	125	82	—	—	—	165	1¼	28	—	—
12—4 a.m.	3rd	165	150	433	124	82	—	—	—	165	1¼	27½	—	—
4—8 a.m.	2nd	165	150	432	119	72	—	—	—	165	1¼	24	—	—
8 a.m.—Noon	4th	165	150	433	123	80	—	—	—	165	1¼	27	—	29" 87

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	LP Exhaust Steam	H.P. Pumps Wet	Dry	Filter	Feed to Boilers
Noon—4 p.m.	27	—	2½	—	130	116	102	86	63	96	—	142	128	105	202
4—8 p.m.	27	—	2½	—	128	115	104	84	63	94	—	140	126	104	200
8—12 p.m.	27	—	2½	—	130	116	104	80	63	94	—	140	126	104	200
12—4 a.m.	27	—	2½	—	130	118	102	80	65	95	—	133	120	104	204
4—8 a.m.	27	—	2½	—	130	118	106	80	65	95	—	132	122	108	207
8 a.m.—Noon	27	—	2½	—	132	118	102	82	65	95	—	132	122	108	206

75300	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	90550	15250	74.4	130		—	—	480	—	36	Fan Opened Full		
4—8 p.m.	08830	18280	76.2	130		—	—	480	—	36			
8—12 p.m.	28070	18240	76.	130		—	—	480	—	34			
12—4 a.m.	46090	18020	75.1	130		—	—	480	—	34			
4—8 a.m.	62960	16870	70.3	130		—	—	480	—	36			
8 a.m.—Noon	82150	19190	74.7	130		—	—	480	—	36			

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING MACHINERY	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	DISTILLER	DENSITY OF BOILERS
.043							H. P. & L. P. Pinion Temp.					Ash	Port Fwd
+¼		⅛F.										183 Bkts.	Star Fwd
							120°	24 hrs.		24 hrs.		6.3 Ton	Port Aft
													Star Aft

FROM Lisbon TOWARDS New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Friday June 25th Repairing & Wrapping H. P. Sight-Glass till 12-35. Evap 4 hrs Ash 30 bkts
4—8 p.m.	Evap 4 hrs Ash 33 bkts
8—12 p.m.	Evap 4 Ash 32 bkts
12—4 a.m. Vap 4 hrs. Ash 30 bkts	A.M. Date Sat. June 26th Called out by 3rd Engr. No Vacuum. Weir pump stopped & Condensate pump stopped
4—8 a.m. Vap 4 hrs Ash 28 bkts	After oil pump steam chest cracked & losing a lot of steam through valves leaking 2nd Engr came & called me 4-30 AM. Condensate pump stopped
8a.m.—NOON 3 hours 3rd " 3 " working on condensate pump bearings	Changing valve chest from E. H. Bilge pump to after oil pump and commenced working pump at 12-0 noon, both oil pumps working. Evap 4 Ash 30

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	142	7	—	—	22	14	212	15	16	4	622	10
DAYS CONSUMPTION	35	6	—	—	—	14	6	10	—	10	43	
CARRIED FORWARD	177	13	—	—	23	8	219	5	16	14	579	10

OILS

TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Skip	Slip Per cent	Pressure	Where led to	Feed Heater Press
		74.4	9.6	8.48		3 lbs.	Main & Aux. Condr. & Feed Heater	1 lb.
23	42	105850	227.5	201	12.5%			

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS CHARGE	BOILER STEAM PRESSURE After Strainer Boilers	BOILER STEAM PRESSURE Before Man'uvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Gauge	VACUUM Kenyon Meter	BAROMETER
Noon–4 p.m.	3rd	170	157	440	122	78	—	—	—	170	1¼	28	—	—
4–8 p.m.	2nd	170	155	440	119	72	—	—	—	170	1¼	28	—	—
8–12 p.m.	4th	170	155	436	121	76	—	—	—	170	1¼	27½	—	—
12–4 a.m.	3rd	170	—	—	—	—	—	—	—	—	1¼	—	—	—
4–8 a.m.	2nd	170	155	437	120	75	—	—	—	170	1¼	27½	—	—
8 a.m.–Noon	4th	170	157	442	123	80	—	—	—	170	1¼	28	—	29.98

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L.P. Exhaust Steam	Air Pump H.P. Wet	Air Pump H.P. Dry	Filter	Feed to Boilers
Noon–4 p.m.	26	—	2½	—	130	116	105	78	68	95	—	138	124	108	202
4–8 p.m.	25	—	2½	—	130	116	103	80	65	95	—	138	124	108	202
8–12 p.m.	26	—	2½	—	130	116	107	80	65	95	—	136	122	106	202
12–4 a.m.	26	—	2½	—	128	114	105	80	66	95	—	130	118	106	205
4–8 a.m.	25	—	2½	—	128	114	105	80	66	94	—	136	124	108	205
8 a.m.–Noon	26	—	2½	—	128	114	104	80	66	96	—	136	124	110	205

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circ. Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Air Fits	At Furnace
Noon–4 p.m.	99790	17640	73.5	130		—	—	480	—	38			
4–8 p.m.	16630	16840	70.2	130		—	—	480	—	40			
8–12 p.m.	26650	10020	71.6	130		—	—	480	—	40			
12–4 a.m.	—	—	—	130		—	—	—	—	38			
4–8 a.m.	34890	8240	68.7	130		—	—	480	—	36			
8 a.m.–Noon	55180	20290	74.9	130		—	—	480	—	40			

Fan Opened Full

CLEARANCES VERIFIED DAILY Finger Place Reading HP	IP	LP	Finger Place Index HP	IP	LP
.013					
+⅛		1/8 F.			

SHAFT HORSE POWER

HOURS WORKING — MAIN MACHINERY H.P. & L.P. Pinion Temp. 125° | EVAPORATOR Port 10 hrs. | EVAPORATOR Starbd | ELECTRIC LIGHT Port 24 hrs. | ELECTRIC LIGHT Starbd | DISTILLER Ash 123 Bkts. 4.2 Tons

DENSITY OF BOILERS Port Fwd | Star Fwd | Port Aft | Star Aft

FROM Lisbon **TOWARDS** New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m. 4th Engr 3 hrs OT Evap 4 hrs Ash 32 bkts	P.M Date Sat June 26th Fitting steam chest of oil pump on E. R. Bilge pump, crack filled with Smooth on. Weir pump pumping direct to boilers from condenser. Condensate pump impossible to start
4–8 p.m. Evap 4 hrs Ash 33 bkts	
8–12 p.m. Stopped 10-20 P.M. Evap 2 hrs Ash 29 bkts	Engines instantly stopped. Valve Spindle on For'd oil pump broken and after pump though working, was not pumping. 4th Engr acted very promptly
12–4 a.m. Stopped 7 hours 49 mins	A.M. Date Sunday June 27th in stopping straight away and averted serious damage. Made examination and found micrometer of L.P. Thrust showing 1/8" more clearance, thereby assuming that the metal on Thrust pads had melted. Fitted spare L.P. Thrust Pads & found For'd bearing of L.P.
4–8 a.m. Full Away 6-0 A.M. 2nd Engr 6 hrs OT 3rd " 4 " OT	
8 a.m.—NOON 4th " 6 " OT	Turbine had run & bearing down .008. Full away 6-0 A.M. Superheaters cleaned Evap 4 hrs Ash 29 bkts

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	1177	13	—	—	23	8	210	5	16	14	579	10
DAYS CONSUMPTION	[illegible]	16	—	—		14	3			10	[illegible]9	
CARRIED FORWARD	1200	9	—	—	24	2	[illegible]14	5	17	4	550	10

OILS

TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Ship Per cent	Pressure	Where led to	Feed Heater Press
		72.2	9.3	12.8		3 lbs.	Main & Aux. Condr. & Feed Heater	1 lb.
16	51	73030	156.7	7.75	17.2%			

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE After Stainer Boilers	Before Man'uvre Valve	Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	Aft	Gland Steam Press	VACUUM Guage	Kenoto Meter	BAROMETER
Noon—4 p.m.	3rd	170	153	440	119	72	—	—	—	170	1¼	27½	—	—
4—8 p.m.	2nd	170	153	437	120	74	—	—	—	170	1¼	27½	—	—
8—12 p.m.	4th	170	153	437	120	74	—	—	—	170	1¼	26	—	—
12—4 a.m.	3rd	170	153	440	122	78	—	—	—	170	1¼	28	—	—
4—8 a.m.	2nd	170	153	439	122	78	—	—	—	170	1¼	28	—	—
8 a.m.—Noon	4th	170	153	436	120	74	—	—	—	170	1¼	27½	—	29[illegible]

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	H.P. L.P. Air Pumps Thrust		Filter	Feed to Boilers
Noon—4 p.m.	26	—	2½	—	126	114	105	82	66	96	—	138	124	115	205
4—8 p.m.	26	—	2½	—	126	114	107	80	66	96	—	138	124	115	205
8—12 p.m.	26	—	2½	—	128	116	110	80	66	96	—	136	124	118	206
12—4 a.m.	26	—	2½	—	130	116	110	82	66	96	—	136	124	118	206
4—8 a.m.	26	—	2½	—	130	116	110	82	64	94	—	138	124	118	206
8 a.m.—Noon	26	—	2½	—	130	116	112	80	64	94	—	136	124	117	208

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	71900	16720	69.7	130		—	—	480	—	36	Fan Opened Full		
4—8 p.m.	88790	16890	70.4	130		—	—	480	—	34			
8—12 p.m.	05730	16940	70.6	130		—	—	480	—	36			
12—4 a.m.	23270	17540	73.1	130		—	—	480	—	38			
4—8 a.m.	40830	17560	73.2	130		—	—	480	—	38			
8 a.m.—Noon	58750	17920	70	130		—	—	480	—	40			

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING REFRIG MACHINERY	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	DISTILLER XXXX	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft
.043							H. P. & L. P. Pinion Temp					Ash 182 Bkts.				
+⅛	—	⅛F					126°	24 hrs		24 hrs.		6.3 Tons				

FROM Lisbon TOWARDS New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Sunday June 27th
	Evap 4 Ash 30 bkts
4–8 p.m.	
	Evap 4 hrs Ash 31 bkts
8–12 p.m.	Superheaters blown
	Poor steam all the watch
	Evap 4 hrs Ash 30 bkts
12–4 a.m.	A.M. Date Monday June 28th
Evap 4 hrs	Poor steam & vacuum
Ash 28 bkts	Evap 4 hrs Ash 33 bkts
4–8 a.m.	Self commenced working on Condensate Pump
Took No. 1 Fireman to Captain about poor steam at 10-0 A.M. Steam 120	opening up & examining
8 a.m. NOON	Engines stopped for 2 mins. Key in For'd Oil Pump came out
Engineer man informed me that firemen could get steam if they wanted No. 1 admitted he was afraid to speak to them	Working on condensate pump.
	stopped for'd oil pump and secured keys in
	cross heads. Ash 4 hrs Ash 30 bkts

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	1200	9	—	—	24	2	224	5	17	4	550	10					
DAYS CONSUMPTION	35	6	—	—		14	6	10	—	10	43						
CARRIED FORWARD	1235	15	—	—	24	16	230	15	17	14	507	10					

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Ship Per cent	Pressure	Where led to	Feed Heater Press
		71.1	9.2	7.79		3 lbs.	Main & Aux. Condr. & Feed heater	1 lb.
24	16	103570	223.2	189	16.3%			

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE Water Brewer	BOILER STEAM PRESSURE Before Man'uvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Guage	VACUUM Kenoto Meter	BAROMETER
Noon—4 p.m.	3rd	170	153	432	120	74	—	—	—	170	1¼	28	—	—
4—8 p.m.	2nd	170	153	430	120	74	—	—	—	170	1¼	27½	—	—
8—12 p.m.	4th	170	153	436	124	82	—	—	—	170	1¼	27½	—	—
12—4 a.m.	3rd	170	153	437	122	78	—	—	—	170	1¼	27½	—	—
4—8 a.m.	2nd	170	153	437	123	80	—	—	—	170	1¼	27½	—	—
8 a.m.—Noon	4th	170	153	436	121	76	—	—	—	170	1¼	27	—29	94

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Dish	L.P. Exhaust Steam	H.P. Wet	H.P. Dry	Filter	Feed to Boilers
Noon—4 p.m.	25	—	2½	—	126	114	102	82	63	92	—	138	124	108	202
4—8 p.m.	25	—	2½	—	126	114	100	80	64	94	—	138	124	106	202
8—12 p.m.	25	—	2½	—	130	116	107	80	68	94	—	138	124	109	206
12—4 a.m.	25	—	2½	—	130	116	109	80	68	96	—	138	124	112	206
4—8 a.m.	25	—	2½	—	130	116	108	80	68	96	—	138	124	112	206
8 a.m.—Noon	25	—	2½	—	128	115	106	80	65	94	—	138	124	108	204

508750	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	75570	16820	70.1	130		—	—	400	—	40	3	—	—
4—8 p.m.	92370	16800	70.	130		—	—	400	—	40	3	—	—
8—12 p.m.	10390	18020	75.1	130		—	—	400	—	40	3	—	—
12—4 a.m.	28050	17660	73.6	130		—	—	400	—	40	3	—	—
4—8 a.m.	45810	17760	74.	130		—	—	400	—	40	3	—	—
8 a.m.—Noon	64370	18560	72.8	130		—	—	400	—	40	3	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING Sterling Machinery	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	DISTILLER	DENSITY OF BOILERS
.043 +⅛	—	⅛F.					125°	21 hrs.		24 hrs.		187 Bkts. 6.5 Tons	Port Fwd
													Star Fwd
													Port Aft
													Star Aft

H. Pinion Temp.

FROM Lisbon TOWARDS New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m. Evap 4 hrs Ash 29 bkts	P.M Date Monday June 28th Self opening up condensate pump & fitting new carbon, adjusting shaft, fitting new brasses & packing gland, rejointing over.
4—8 p.m.	Poor steam, consequently poor vacuum Evap 4 hrs Ash 32 bkts
8—12 p.m.	Condensate pump started 9-0 A.M. Poor steam & vacuum Evap 4 hrs Ash 33 bkts
0—4 a.m.	A.M. Date ~~Friday June 29th~~ Poor steam & vacuum. Steam back to 120 lb. while cleaning two fires. Evap 4 hrs Ash 31 bkts
4—8 a.m.	Poor steam & vacuum. 6-9 A.M. before steam commenced to rise. Evap 4 hrs Ash 29 bkts
8 a.m.—NOON Better Steam No. 1 in Stoke-Hold 2nd Engr. 2½ hrs. O.T. 2nd " 2 " "	Evaporator coils scaled. Dynamo commutator cleaned. Superheater tubes cleaned Condensate pump running well. Evap 4 hr Ash 32

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	1235	15	—	—	24	16	230	15	17	14	507	10					
DAILY CONSUMPTION	35	6	—	—	—	14	6	10	—	16	43	—					
CARRIED FORWARD	1271	1	—	—	25	10	237	5	18	4	551	10					

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		72.5	9.4	7.17		3 lbs.	Main & Aux. Condr. Feed Heater	1 lb.
24	15	65620	227.9	174	24.4%	CHIEF ENGINEER R. G. DONALDSON		

VOYAGE NO. 1

ENGINEER'S LOG S.S. "Willdomine"

WATCH	ENGINEERS in CHARGE	BOILER STEAM			STEAM PRESSURES							VACUUM		BAROMETER
		PRESSURE			H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS		Glend Steam Press	Guage	Kenoto Meter	
		After Strainer	Before Man'uvre Valve	Temp°					Forward	Aft				
Noon–4 p.m.	3rd	170	157	448°	130	78	—	—	—	170	11½	27	—	29.96
4–8 p.m.														
8–12 p.m.														
12–4 a.m.														
4–8 a.m.														
8 a.m.–Noon														

	OIL PRESSURES				OIL TEMPERATURES		TEMPERATURES								
	Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	Cooler Inlet	Cooler Outlet	Eng Room	Stoke hold	Sea	Dissh	L.P. Exhaust Steam	Air Pumps Wet	Air Pumps Dry	Filter	Feed to Boilers
Noon–4 p.m.															
4–8 p.m.	All fires banked on port and centre boilers. Star'd boiler used for auxiliary purposes.														
8–12 p.m.															
12–4 a.m.															
4–8 a.m.															
8 a.m.–Noon															

64370	REVOLUTIONS					DOUBLE STROKES					AIR PRESSURE		
	MAIN SHAFT			Main Circg Pump	Oil Cooler Pump	FEED PUMP			Air Pump per Min	Oil Pump per Min	At Fan Casing	At Ash Pits	At Furnaces
	Counter	Per Watch	Per Min			Counter	Per Watch	Per Hour					
Noon–4 p.m.	69550	5180	73	150		—	—	480	—	40	3	—	—
4–8 p.m.													
8–12 p.m.													
12–4 a.m.													
4–8 a.m.													
8 a.m.–Noon													

CLEARANCES VERIFIED DAILY						SHAFT HORSE POWER	HOURS WORKING					DENSITY OF BOILERS
Finger Piece Reading			Finger Piece Index				REFRIG MACHINERY	EVAPORATOR		ELECTRIC LIGHT		DISTILLER	
HP	IP	LP	HP	IP	LP			Port	Starbd	Port	Starbd		Port Fwd
													Star Fwd
													Port Aft
													Star Aft

FROM Lisbon TOWARDS New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Tuesday June 29th At 1.5 PM Turbine stopped, through for'd oil Pump stopping, caused through thread stripping
4—8 p.m.	in double eye of valve spindle. After oil pump although working did not commence pumping oil
8—12 p.m.	when other pump stopped. Examined clearances of H.P. & L.P. Rotors, to see if metal had melted & they showed original working clearance. Rang telegraph Full Ahead & put steam on turbine
12—4 a.m.	but failed to move them, although noticed at the A.M. time that the Labyrinth fin packing on H.P. Date for'd gland was blowing Wed June 30th
This accident would not have happened had we been able to go astern and stopped turbines sooner. This was impossible through having had to take P.H. Astern exhausted pipe off through same having broke	4—8 a.m. badly. Knew then something serious had happened to H.P. Turbine. Again took clearances and found that both H.P. & L.P. Rotors were 1/8" aft of working position. Commenced & took H.P. Thrust and H.P. after bearing covers adrift, found H.P. ahead Kingsbury thrust Pads had melted but not 8 a.m.—NOON sufficient to cause damage to turbine blading, also found both for'd & after bearings had melted shaft bearing down.

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	1271	1	—	—	25	10	237	5	18	4	464	10					
DAYS CONSUMPTION	—	—	—	—	—	14	4	6	—	10	5	10					
CARRIED FORWARD	1271	1	—	—	26	4	241	11	18	14	459						

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		73	9.4	6.78		—	—	—
1	11	5180	11.1	8	28%	CHIEF ENGINEER R. G. DONALDSON		

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM			STEAM PRESSURES							VACUUM		BAROMETER
		PRESSURE			H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS		Gland Steam Press	Guage	Kenolo Meter	
		After Strainer	Before Manœuvre Valve	Temp°					Forward	Aft				
Noon–4 p.m.														
4–8 p.m.														
8–12 p.m.														
12–4 a.m.														
4–8 a.m.														
8 a.m.–Noon														

	OIL PRESSURES				OIL TEMPERATURES		TEMPERATURES									
	Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	Cooler Inlet	Cooler Outlet	Eng Room	Stoke hold	Sea	Disch	L.P. Exhaust Steam	Air Pumps		Filter	Feed to Boilers	
												Wet	Dry			
Noon–4 p.m.																
4–8 p.m.																
8–12 p.m.	Port and Centre Boilers Fires Banked,															
12–4 a.m.	Stard boiler used for Auxiliary Purposes															
4–8 a.m.																
8 a.m.–Noon																

	REVOLUTIONS					DOUBLE STROKES					AIR PRESSURE		
	MAIN SHAFT			Main Circg Pump	Oil Cooler Pump	FEED PUMP			Air Pump per Min	Oil Pump per Min	At Fan Casing	At Ash Pits	At Furnaces
	Counter	Per Watch	Per Min			Counter	Per Watch	Per Hour					
Noon–4 p.m.													
4–8 p.m.													
8–12 p.m.													
12–4 a.m.	All Smoke boxes cleaned out and ashes heaved												
4–8 a.m.													
8 a.m.–Noon													

CLEARANCES VERIFIED DAILY						SHAFT HORSE POWER	HOURS WORKING					DENSITY OF BOILERS	
Finger Piece Reading			Finger Piece Index				REFRIG MACHINERY	EVAPORATOR		ELECTRIC LIGHT		DISTILLER	
HP	IP	LP	HP	IP	LP			Port	Starbd	Port	Starbd		Port Fwd
													Star Fwd
													Port Aft
													Star Aft

FROM Lisbon TOWARDS New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Wed June 30th
4—8 p.m.	Took L. P. Thrust adrift & found Ahd Thrust pads had melted, but not sufficient to cause damage to blades. Fitted spare thrust pads in L. P. & fitted spare thrust pads & bearings in H. P. Rotor, also new bottom halves in H. P. Pinion bearings. Examined all gearing through hand hole doors and found it in good condition. Tried then to turn engines with hand gear but unsuccessful.
8—12 p.m.	
12—4 a.m. Lost about 300 gallons of oil through drain tank overflowing when accident happened	A.M. Date Thurs July 1st
4—8 a.m. NOON	Then discontinued flexible coupling on H. P. and again tried, this time gears turned quite easy. Assumed then that H. P. Turbine was damaged, so lifted cover and found fin glands worn badly and damaged, also blades broken and damaged on 2nd expansion. Impossible to repair same with time at my disposal, so blanked off all H. P. connection & got ready for working on one engine. Took H. P. Pinion shaft out.

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	271	1	—	—	26	4	241	11	18	14	459						
DAYS CONSUMPTION	—	—	—	—	—	14	1	16	—	10	3						
CARRIED FORWARD	271	—	—	—	26	18	243	7	19	4	456						

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS CHARGE	BOILER STEAM			STEAM PRESSURES						VACUUM		BAROMETER
		PRESSURE							EJECTORS				
		After Strainer	Before Manœuvre Valve	Temp°	H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	Forward	Aft	Gland Steam Press	Gauge	Kenyon Meter	
Noon–4 p.m.														
4–8 p.m.														
8–12 p.m.		Firemen assisting when required												
12–4 a.m.														
4–8 a.m.														
8 a.m.–Noon														

	OIL PRESSURES				OIL TEMPERATURES		TEMPERATURES								
	Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	Cooler Inlet	Cooler Outlet	Eng Room	Bilge hold	Sea	Dischg	L.P. Exhaust Steam	Air Pumps Wet	Air Pumps Dry	Filter	Feed to Boilers
Noon–4 p.m.															
4–8 p.m.															
8–12 p.m.		Port & Centre Boilers fires banked & steam shut off													
12–4 a.m.		Star'd boiler used for auxiliary purposes													
4–8 a.m.															
8 a.m.–Noon															

	REVOLUTIONS					DOUBLE STROKES					AIR PRESSURE		
	MAIN SHAFT			Main Circ. Pump	Oil Cooler Pump	FEED PUMP			Air Pump per Min	Oil Pump per Min			
	Counter	Per Watch	Per Min			Counter	Per Watch	Per Hour					
Noon–4 p.m.													
4–8 p.m.													
8–12 p.m.													
12–4 a.m.													
4–8 a.m.													
8 a.m.–Noon													

CLEARANCES VERIFIED DAILY						SHAFT HORSE POWER	HOURS WORKING					DENSITY OF BOILERS	
Finger Piece Reading			Finger Piece Index				REFRIG MACHINERY	EVAPORATOR		ELECTRIC LIGHT		DISTILLER	
H.P.	I.P.	L.P.	H.P.	I.P.	L.P.			Port	Starbd	Port	Starbd		Port Fwd
													Star Fwd
													Port Aft
													Star Aft

FROM Lisbon **TOWARDS** New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date— Thurs. July 1st Blanking off all steam connections " " " Exhaust "
4–8 p.m.	Leading from & to H. P. Turbine Disconnecting & blanking off all drain and leak-off pipes
8–12 p.m.	Blanking off Oil pipes and taking same adrift to make sure no white metal remains. All oil pumped out of tank
12–4 a.m.	A.M. Date ~~Friday July 2nd~~ and strained. Strained myself badly while lifting R. G. O. Steam raised on main
4–8 a.m.	boilers and levelled up. All platforms, gratings & ladders replaced.
8 a.m.—NOON	Oil system tried and drain system also tried. Steam on L. P. warming through.

COAL CONSUMPTION

	MAIN ENGINES		REFRIG. MACHINERY		ELECTRIC LIGHTING ETC.		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	1271	1	—	—	26	18	243	7	19	4	456	—
DAYS CONSUMPTION	—	—	—	—	—	14	3	16	—	10	5	—
CARRIED FORWARD	1271	1	—	—	27	12	247	3	19	14	451	—

OILS

TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE Boilers XXX	Before Man'uvre Valve	Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	Aft	Gland Steam Press	VACUUM Guage	Kenoto Meter	BAROMETER
Noon-6 p m	Chief	175	153	436	—	—	—	1½	—	175	1½	29½	—	—
6-8 p m	2nd	175	153	440	—	—	—	1½	—	175	1½	29½	—	—
8-12 p m	Chief	175	153	440	—	—	—	1½	—	175	1½	29½	—	—
12-4 a m	2nd	175	153	448	—	—	—	1½	—	175	1½	29½	—	—
4-8 a m	Chief	175	153	450	—	—	—	1½	—	175	1½	29½	—	—
8 a m.-Noon		175	153	450	—	—	—	1½	—	175	1½	29½	—30°	-15

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	XXXXX L.P. Thrust	Hot XXX Well	Feed to Boilers
Noon-4 p m	25	—	2½	—	116	102	100	84	68	94	—	112	110	206
4-8 p.m.	26	—	2½	—	116	102	106	80	68	94	—	112	110	200
8-12 p m	26	—	2½	—	116	102	108	84	68	94	—	112	106	204
12-4 a.m.	26	—	2½	—	116	102	110	86	68	94	—	114	104	202
4-8 a.m.	26	—	2½	—	116	102	110	86	68	94	—	115	110	204
8 a.m.-Noon	26	—	2½	—	116	102	110	86	68	94	—	115	110	204

69550	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon-4 p m	86150	16600	69.1	124		—	—	480	—	40	3	—	—
4-8 p m	01580	15430	64.3	124		—	—	480	—	40	3	—	—
8-12 p m	18260	16680	69.2	124		—	—	480	—	40	3	—	—
12-4 a m	35260	17000	70.8	124		—	—	480	—	40	3	—	—
4-8 a.m.	52520	17260	71.9	124		—	—	480	—	40	3	—	—
8 a m.-Noon	70360	17840	74.3	124		—	—	480	—	40	3	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING XXXX L.P. Pinion Temp.	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	XXXX DISTILLER Ash	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft
							112°	24 hrs.		24 hrs.		195 Bkts. 6.8 Tons				

FROM Lisbon **TOWARDS** New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m. After Oil Pump	P.M Date Friday July 2nd Steam on L. P. Turbine for trial reported to Captain, everything O. K. Full Away
4–8 p.m. working Evap 4 hrs Ash 37 bkts	2nd & 4th Engr on Watch 12-0 noon to 6-0 PM. Chief & 3rd " " " 6-0 PM. to 12-0 PM.
8–12 p.m. Evap 4 hrs Ash 39 bkts	Condensate pump after constantly losing water by becoming vapour bound, finally stopped altogether. Weir's pumping direct from condenser, Radojet & Vap working into
12–4 a.m. Evap 4 hrs Ash 40 bkts	A.M. Date Sat. July 3rd aux condr L. P. Working fine 75 Revs at 1½ lb inlet pressure with 29½ vac.
4–8 a.m. Evap 4 hrs Ash 42 bkts	Weir pumping unevenly through working from condenser
8 a.m.—NOON Evap 3½ hrs Ash 36 Bkts Draft For'd 15'-0" Aft. 16'-2" Mean 15'-7"	Arriving St. Micaiels, Std 11-56 AM. 12-0 Stop Various movements till F. W. F. 2.30 AM.

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	1271	1	—	—	27	12	247	3	19	14	451						
DAYS CONSUMPTION	42	6	—	—	—	14	6	10	—	10	50						
CARRIED FORWARD	1313	7	—	—	28	6	253	13	20	4	401						

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
24	—	70 100810	9.1 218.4	8 192	12.1%	3½ lbs.	Main & Aux. Condr. Feed Heater	1 lb.

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM			STEAM PRESSURES						VACUUM		BAROMETER
		PRESSURE							EJECTORS				
		After Strainer	Before Man'uvre Valve	Temp°	H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	Forward	Aft	Gland Steam Press	Gauge	Kenyon Meter	
Noon–4 p m														
4–8 p m.														
8–12 p m.														
12–4 a m.														
4–8 a m.														
8 a m.–Noon														

	OIL PRESSURES				OIL TEMPERATURES		TEMPERATURES								
												Air Pumps			
	Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	Cooler Inlet	Cooler Outlet	Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	Wet	Dry	Filter	Feed to Boilers
Noon–4 p m.															
4–8 p.m.															
8–12 p m.															
12–4 a.m.															
4–8 a.m.															
8 a.m.–Noon															

	REVOLUTIONS					DOUBLE STROKES					AIR PRESSURE		
	MAIN SHAFT			Main Circg Pump	Oil Cooler Pump	FEED PUMP			Air Pump per Min	Oil Pump per Min			
	Counter	Per Watch	Per Min			Counter	Per Watch	Per Hour					
Noon–4 p m.													
4–8 p.m.													
8–12 p m.													
12–4 a m.													
4–8 a.m.													
8 a.m.–Noon													

CLEARANCES VERIFIED DAILY						SHAFT HORSE POWER	HOURS WORKING					DENSITY OF BOILERS
Finger Piece Reading			Finger Piece Index				REFRIG MACHINERY	EVAPORATOR		ELECTRIC LIGHT		DISTILLER
HP	IP	LP	HP	IP	LP			Port	Starbd	Port	Starbd	
												Port Fwd
												Star Fwd
												Port Aft
												Star Aft

FROM At Ponta Delgada TOWARDS

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Sat. July 3rd Port & Star'd boiler fires banked Donkey Boiler Centre Boiler
4—8 p.m.	Awaiting instructions re repairs &c
8—12 p.m.	Dynamos running till 10-30 PM. 3rd Engr on duty
0—4 a.m.	A.M. Date Sunday July 4th
4—8 a.m.	
8 a.m.—NOON	No steam being used

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD												
DAYS CONSUMPTION												
CARRIED FORWARD												

OILS

TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Log	Slip Per cent	Pressure	Where led to	Feed Heater Press

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS CHARGE	BOILER STEAM			STEAM PRESSURES							VACUUM		BAROMETER
		PRESSURE							EJECTORS					
		After Strainer	Before Man'uvre Valve	Temp°	H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	Forward	Aft	Gland Steam Press	Guage	Kenoto Meter	
Noon–4 p.m.														
4–8 p.m.														
8–12 p.m.														
12–4 a.m.														
4–8 a.m.														
8 a.m.–Noon														

	OIL PRESSURES				OIL TEMPERATURES		TEMPERATURES								
	Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	Cooler Inlet	Cooler Outlet	Eng. Room	Stoke hold	Sea	Disch	L P Exhaust Steam	Air Pumps Wet	Air Pumps Dry	Filter	Feed to Boiler
Noon–4 p.m.															
4–8 p.m.															
8–12 p.m.															
12–4 a.m.															
4–8 a.m.															
8 a.m.–Noon															

	REVOLUTIONS					DOUBLE STROKES					AIR PRESSURE		
	MAIN SHAFT			Main Circg Pump	Oil Cooler Pump	FEED PUMP			Air Pump per Min	Oil Pump per Min	At Fan Casing	At Air Fits	At Furnace
	Counter	Per Watch	Per Min			Counter	Per Watch	Per Hour					
Noon–4 p.m.													
4–8 p.m.													
8–12 p.m.													
12–4 a.m.													
4–8 a.m.													
8 a.m.–Noon													

CLEARANCES VERIFIED DAILY						SHAFT HORSE POWER	HOURS WORKING					DENSITY OF BOILERS
Finger Piece Reading			Finger Piece Index				REFRIG MACHINERY	EVAPORATOR		ELECTRIC LIGHT		DISTILLER	
HP	IP	LP	HP	IP	LP			Port	Starbd	Port	Starbd		Port Fwd
													Star Fwd
													Port Aft
													Star Aft

FROM At Ponta Delgada TOWARDS

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Sunday July 4th
4—8 p.m.	
8—12 p.m.	No Dynamos Running
12—4 a.m.	A.M. Date Monday July 5th Mr. Hood & Mr. Fingleton visited ship on Official
4—8 a.m.	survey and recommended following repairs to be done General overhaul of lubricating machinery " " " main engines subject to my advices Auxiliary machinery to be put in first-class condition
8 a.m.—NOON	Sufficient water and coal to be supplied to enable ship to reach her destination JOHN J. FINKLETON S. FAST RUSSELL

COAL CONSUMPTION													OILS				
	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts					
BROUGHT FORWARD																	
DAYS CONSUMPTION			TOM HOOD														
CARRIED FORWARD			H.M.H. LORD KILCH PONTA DELGADA														

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press

51-6-12

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS CHANGE	BOILER STEAM PRESSURE After Stramer	BOILER STEAM PRESSURE Before Man'ore Valve	BOILER STEAM Temp°	STEAM PRESSURES H.P. Ahead Inlet	H.P. Sternd Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Gauge	VACUUM Kenyon Meter	BAROMETER
Noon–4 p.m.					Monday July 5th									
4–8 p.m.		Firemen washing paint-work in Engine-room												
8–12 p.m.		L. P. Thrust taken adrift for fitting of new												
12–4 a.m.		L. P. Astern thrust pads												
4–8 a.m.		L. P. Astern Steam pipe blank flange taken out												
8 a.m.–Noon														

	OIL PRESSURES Pump Discharge	OIL PRESSURES Cooler Outlet	OIL PRESSURES Bearings Mean	OIL PRESSURES Main Thrust	OIL TEMPERATURES Cooler Inlet	OIL TEMPERATURES Cooler Outlet	TEMPERATURES Eng. Room	TEMPERATURES Stoke hold	TEMPERATURES Bee	TEMPERATURES Dieck	TEMPERATURES L.P. Exhaust Steam	TEMPERATURES Air Pumps Wet	TEMPERATURES Air Pumps Dry	TEMPERATURES Filter	TEMPERATURES Feed to Boilers
Noon–4 p.m.		new flange jointed.													
4–8 p.m.		Escape valve on Weir pump delivery valves ground in													
8–12 p.m.		2nd & 3rd Engrs. Tallying coal on shore and coal being													
12–4 a.m.		heaved on board by 2 Bunker winches.													
4–8 a.m.															
8 a.m.–Noon															

	REVOLUTIONS MAIN SHAFT Counter	REVOLUTIONS MAIN SHAFT Per Watch	REVOLUTIONS MAIN SHAFT Per Min	REVOLUTIONS Main Circ. Pump	REVOLUTIONS Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	DOUBLE STROKES FEED PUMP Per Watch	DOUBLE STROKES FEED PUMP Per Hour	DOUBLE STROKES Air Pump per Min	DOUBLE STROKES Oil Pump per Min	AUX PRESSURES At Fan Casing	AUX PRESSURES At Ash Pits	AUX PRESSURES At Furnaces
Noon–4 p.m.	Repairs passed by Lloyd's representatives & put in												
4–8 p.m.	hand. Re-babbitting of L. P. thrust pads &												
8–12 p.m.	repairs and renewals to Oil pumps, valve gear.												
12–4 a.m.	Finished bunkering at 9-30 P.M.												
4–8 a.m.	Dynamos running till 10-0 P.M.												
8 a.m.–Noon													

CLEARANCES VERIFIED DAILY Finger Place Reading HP	IP	LP	Finger Place Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING REFRIG MACHINERY	EVAPORATOR Port	EVAPORATOR Starbd	ELECTRIC LIGHT Port	ELECTRIC LIGHT Starbd	DISTILLER	DENSITY OF BOILERS Port Fwd	Starbd Fwd	Port Aft	Starbd Aft

FROM At Ponta Delgada TOWARDS

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Tuesday July 6th
	All stop valve spindles on superheated
4–8 p.m.	steam line packed.
	Steering engine steam pipe taken off for
	repair. L. P. drain pipe blanked off.
8–12 p.m.	Flange fitted in L. P. Astern Steam line
	winch steam reducing valve rejointed
	Evaporator vapor valve being ground in
0–4 a.m.	A.M. Date
	Evaporator coils being sealed
	Engine room washed & painted
4–8 a.m.	Wednesday July 7th
	Auxiliary condenser pump plunger repacked
	Reducing vlave for winch steam rejointed
8 a.m.—NOON	New stud fitted in throttle valve for turbine
	and & astern turbine stop valve repacked
	Vapour valve being ground in & cover jointed

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD																	
DAYS CONSUMPTION																	
CARRIED FORWARD																	

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Dalp	Slip Per cent	Pressure	Where led to	Feed Heater Press

CHIEF ENGINEER

VOYAGE NO. 1

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE After Strainer	BOILER STEAM PRESSURE Before Man'uvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Gauge	VACUUM Kenoto Meter	BAROMETER
Noon–4 p.m.														
4–8 p.m.	For'd feed pump valve chest taken off for examination													
8–12 p.m.	Main bilge pump steam joint remade and new valve													
12–4 a.m.	fitted on exhaust valve spindle. Dynamo commutator													
4–8 a.m.	and brushes cleaned.													
8 a.m.–Noon	Engine room being washed and painted													

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Dish	L.P. Exhaust Steam	Air Pumps Wet	Air Pumps Dry	Filter	Fuel to Boilers
Noon–4 p.m.															
4–8 p.m.	Evaporator coils thoroughly scaled														
8–12 p.m.	Dynamos running till 10.30 PM.														
12–4 a.m.															
4–8 a.m.	Thursday July 8th														
8 a.m.–Noon															

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circ Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Fire	At Funnel
Noon–4 p.m.	Visited machine shop about work												
4–8 p.m.	For'd feed pump steam valves being examined												
8–12 p.m.	Working on No. 1 dynamo brushes & bearings												
12–4 a.m.	Aft Oil pump crosshead being secured												
4–8 a.m.	Received oil from Vacuum Oil Company												
8 a.m.–Noon													

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING REFRIG MACHINERY	EVAPORATOR Port	EVAPORATOR Starbd	ELECTRIC LIGHT Port	ELECTRIC LIGHT Starbd	DISTILLER	DENSITY OF BOILERS Port Fwd	Starbd Fwd	Port Aft	Starbd Aft

FROM — at Ponda-del-Gada TOWARDS

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Received thrust pads and fitted same
	L. P. Thrust finished
4—8 p.m.	For'd feed pump tried successfully
	Steering engine pipe and pump valve gear
	promised for 9-0 AM. tomorrow
8—12 p.m.	Dynamo running till 10-30 P.M.
	Self on watch and working all day
12—4 a.m.	A.M. Date Friday July 9th
	Turbines warmed through. Valve gear for pump arrived and
4—8 a.m.	put together. Tried pump successfully. Waiting for pipe. ~~Captain and self at 4-30 PM. hurried to shop to bring pipe back, instead of brazing same they had made a new piece.~~ Jointed same and put steam on. Pipe cracked along seam
8 a.m.—NOON	18″, took pipe off and ordered copper pipe to be made, could not possible finish same till tomorrow. Pilot and boatmen sent away again. Boiler fires again banked

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD																	
DAYS CONSUMPTION																	
CARRIED FORWARD																	

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Solp	Slip Per cent	Pressure	Where led to	Feed Heater Press

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE After Stopper	BOILER STEAM PRESSURE Before Man'uvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Guage	VACUUM Kenoto Meter	BAROMETER
Noon—4 p.m.														
4—8 p.m.														
8—12 p.m.		175		438	—	—	—	1½	—	175	1¼	28	—	—
12—4 a.m.		—		—	—	—	—	—	—	—	—	—	—	—
4—8 a.m.		—		—	—	—	—	—	—	—	—	—	—	—
8 a.m.—Noon		—		—	—	—	—	—	—	—	—	—	—29"—94	

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	LP Exhaust Steam	XXXXX L.P. Thrust Wet	Dry	Filter	Feed to Boilers
Noon—4 p.m.															
4—8 p.m.															
8—12 p.m.	24	—	2½	—	116	102	112	84	70	100	—	118°		112°	205°
12—4 a.m.	—	—	—	—	—	—	—	—	—	—	—	—		—	—
4—8 a.m.	—	—	—	—	—	—	—	—	—	—	—	—		—	—
8 a.m.—Noon	—	—	—	—	—	—	—	—	—	—	—	—		—	—

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.						—	—						
4—8 p.m.	68010					—	—					—	—
8—12 p.m.	84450	16440	68.5	122		—	—	720	—	36	3	—	—
12—4 a.m.	92850	8400	70	—		—	—	720	—			—	—
4—8 a.m.	—	—	—	—		—	—	—	—			—	—
8 a.m.—Noon	—	—	—	—		—	—	—	—			—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING XXXX MACHINERY L.P. Pinion Temp.	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	XXXX DISTILLER	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft
							122°					—				

FROM Ponta-del-gada TOWARDS New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m. FOR'D DRAFT AFT MEAN	P.M. Date Saturday July 10th Engineers on 6 hour Watch Copper pipe for Steering Engine brought on board & jointed
4–8 p.m. Stand by 7-40 P.M. Half Ahd 7-45 P.M. Full " 8-0 P.M.	Both feed pumps working " Oil " " Radojet exhausting into Aux Condr
Coal arriving 401 Tons Received 250 " 651 Used 22 629 Tons	Self keeping watch though suffering from double rupture R.G.D.
12–4 a.m.	A.M. Date Sunday July 11th Called out at 1-15 by 2nd Engr could not get pump to pump against boiler pressure. Both pumps hot through
4–8 a.m. Stopped 18 hrs.	check valves leaking. Water to be seen in only two boilers. Drew fires on port boiler, connected hose in engine room and cooled down pumps, then pumped from the
8 a.m.—NOON Light Westerly wind	sea. Took Weir plunger adrift and fitted new woodite rings. Put new springs on delivery valves. Found 1 suc- tion valve seat ¼" loose in seat of chamber. For'd feed pump no use against boiler pressure

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	1313	7	—	—	28	6	253	13	20	4	629	—					
DAYS CONSUMPTION	16	6	—	—	—	14	4	—	—	10	22	—					
CARRIED FORWARD	1329	13	—	—	29	—	257	13	20	14	607	—					

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		69	8.9	6.6		2 lbs.	Main & Aux condr & feed heater	
6	—	24840	53.4	40	25%			

CHIEF ENGINEER R. G. DONALDSON

Engineers on 6 hrs. watch
Chief & 3rd 6-12 2nd & 4th 12 to 6

VOYAGE NO 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE Boilers			STEAM PRESSURES							VACUUM		BAROMETER
		Water Chamber	Before Man'uvre Valve	Temp°	H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	Guage	Kenoto Meter	
Noon—4 p m		175	153	440	—	—	—	1½	—	175	1¼	26½	—	—
4—8 p m		175	153	440	—	—	—	1½	—	175	1¼	26½	—	—
8—12 p m		175	153	440	—	—	—	1½	—	175	1¼	26½	—	—
12—4 a m		175	153	440	—	—	—	1½	—	175	1¼	26½	—	—
4—8 a m		175	153	440	—	—	—	1½	—	175	1¼	26½	—	—
8 a m—Noon		175	153	440	—	—	—	1½	—	175	1¼	26½	—29	97

	OIL PRESSURES				OIL TEMPERATURES		TEMPERATURES							
	Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	Cooler Inlet	Cooler Outlet	Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	Air Pumps ~~Wet~~ L.P. Thrust	Air Pumps ~~Dry~~ L.P. Thrust	Filter	Feed to Boilers
Noon—4 p m	24	—	2	—	116	102	104	78	72	100	—	118		106	204
4—8 p.m.	25	—	2	—	116	102	108	78	70	100	—	118		107	205
8—12 p m	25	—	2	—	116	102	110	78	70	100	—	118		107	206
12—4 a.m.	25	—	2½	—	116	102	110	78	70	100	—	118		106	206
4—8 a.m.	25	—	2	—	116	102	106	78	70	100	—	118		106	206
8 a.m.—Noon	25	—	2	—	116	102	110	78	68	100	—	118		106	206

	REVOLUTIONS					DOUBLE STROKES					AIR PRESSURE		
	MAIN SHAFT Counter	MAIN SHAFT Per Watch	MAIN SHAFT Per Min	Main Circg Pump	Oil Cooler Pump	FEED PUMP Counter	FEED PUMP Per Watch	FEED PUMP Per Hour	Air Pump per Min	Oil Pump per Min	At Fan Casing	At Ash Pits	At Fan Noise
Noon—4 p m	03030	10180	53.6	120		—	—	720	—	36	3	—	—
4—8 p.m.	18430	15400	64.2	130		—	—	720	—	36	3½	—	—
8—12 p m	34270	15840	66.	128		—	—	720	—	34	3	—	—
12—4 a m	49430	15160	63.2	125		—	—	720	—	32	3	—	—
4—8 a.m.	65030	15600	65.	124		—	—	720	—	36	3	—	—
8 a.m.—Noon	82500	17470	64.5	125		—	—	720	—	36	3	—	—

CLEARANCES VERIFIED DAILY						SHAFT HORSE POWER	HOURS WORKING						DENSITY OF BOILERS	
Finger Piece Reading			Finger Piece Index				~~Refrig Machinery~~ L.P. Pinion Temp.	EVAPORATOR		ELECTRIC LIGHT		~~Distiller~~ Ash 188 Bkts.	Port Fwd	
HP	IP	LP	HP	IP	LP			Port	Starbd	Port	Starbd		Star Fwd	
													Port Aft	
							116°	20 hrs.		24 hrs.		6.2 Tons	Star Aft	

FROM Ponta-del-gada TOWARDS New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m. Stopped 50 mins	P.M. Date July 11th Sunday Got pump coupled and went Full Ahd Steering
4—8 p.m. 12-50 Slow Ahd 12-55 Full " 1-6 Slow 3-20 Full Steering En Finish	engine would not work, examined same and found set screws had become loose and worked out of top and brass. New screws fitted. Turbines going slow. 2 hrs 19 mins Evap 4 hrs Ash 35 bkts
8—12 p.m.	Evap 4 hrs Ash 40 bkts
12—4 a.m.	A.M. Date ~~July 12th Monday~~ Evap 4 hrs Ash 38 bkts
4—8 a.m.	Evap 4 hrs Ash 38 bkts
8 a.m.—NOON	Evap 4 hrs Ash 37 bkts

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	1329	13	—	—	29	—	257	13	20	14	607	—					
DAYS CONSUMPTION	42	6	—	—	—	14	6	10	—	10	50	—					
CARRIED FORWARD	1371	19	—	—	29	14	264	3	21	4	557	—					

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Log	Slip Per cent	Pressure	Where led to	Feed Heater Press
		63.9	8.3	6.03		2 lbs.	Main & aux condr & ~~feed heater~~	
23	22	89650	193.9	144	27.7%	CHIEF ENGINEER R. G. DONALDSON		

Engineers on 6 hrs. watch
Chief & 3rd 6-12 2nd & 4th 12 to 6

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE XXX Boilers	Before Man'uvre Valve	Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	Aft	Gland Steam Press	VACUUM Guage	Kenoto Meter	BAROMETER
Noon—4 p.m.		175	153	436	—	—	—	1½	—	175	1¼	22	—	—
4—8 p.m.		175	153	430	—	—	—	1½	—	175	1¼	23	—	—
8—12 p.m.		175	153	430	—	—	—	1½	—	175	1¼	24½	—	—
12—4 a.m.		175	153	432	—	—	—	1½	—	175	1¼	24	—	—
4—8 a.m.		175	153	433	—	—	—	1½	—	175	1¼	24	—	—
8 a.m.—Noon		175	153	440	—	—	—	1½	—	175	1¼	26	—	—

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	XXX Exhaust Steam	XXXXX L.P. Thrust	Filter	Feed to Boilers
Noon—4 p.m.	24	—	3	—	116	102	112	80	70	100	—	116	108	206
4—8 p.m.	24	—	3	—	116	102	114	80	70	100	—	116	108	206
8—12 p.m.	24	—	2½	—	118	104	114	80	70	100	—	116	107	205
12—4 a.m.	24	—	2½	—	116	102	116	80	68	100	—	118	107	206
4—8 a.m.	24	—	2½	—	118	104	112	80	68	100	—	118	106	206
8 a.m.—Noon	25	—	2½	—	118	104	112	80	70	100	—	116	112	208

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	96980	14480	60.3	122		—	—	720	—	32	3	—	—
4—8 p.m.	12190	15210	63.4	122		—	—	720	—	32	3	—	—
8—12 p.m.	28740	16550	68.9	122		—	—	720	—	32	3	—	—
12—4 a.m.	44780	16040	66.8	122		—	—	720	—	32	3	—	—
4—8 a.m.	60590	15810	65.9	122		—	—	720	—	32	3	—	—
8 a.m.—Noon	77850	17260	67.7	122		—	—	720	—	32	3	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING XXXX L.P. Piston Temp.	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	XXXX DISTILLER Ash 233 Bkts.	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft
							114°	24 hrs.				8.3 Tons				

FROM Ponta-del-gada TOWARDS New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date ~~Monday July 12th~~ Self searching for air leaks, poor vacuum ~~Evap 4 hrs Ash 39 bkts~~
4–8 p.m.	Chief Engr 4 hrs OT 2nd " 4 " " 3rd " 4 " " 4th " 4 " " Evap 4 hrs Ash 40 bkts
8–12 p.m.	Self searching for air leaks, all platform plates up, screwing up joints &c. Evap 4 hrs Ash 40 bkts
12–4 a.m.	A.M. Date ~~Tuesday July 13th~~ Hard work for feed pump to cope with water Evap 4 hrs Ash 37 bkts
4–8 a.m.	Evap 4 hrs Ash 36 bkts
8 a.m. NOON	Light airs Smooth sea Evap 4 hrs Ash 41 bkts

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	371	19	—	—	29	14	264	3	21	4	557	—					
DAYS CONSUMPTION	42	6	—	—	—	14	6	10	—	10	50	—					
CARRIED FORWARD	414	5	—	—	30	8	270	13	21	14	507	—					

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Skip	Slip Per cent	Pressure	Where led to	Feed Heater Press
24	15	65.5 95350	8.5 206.1	7.46 181	12.8%	2 lbs.	Main & aux condr Feed heater	

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO 4

ENGINEER'S LOG S.S. "Willdomino"

Engineers on 6 hrs. watch
Chief & 3rd 6-12 2nd & 4th 12 to 6

WATCH	ENGINEERS in CHARGE	BOILER STEAM PRESSURE ~~After Steam~~ Boilers	Before Man'uvre Valve	Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	Aft	Gland Steam Press	VACUUM Gauge	Kenyon Meter	BAROMETER
Noon–4 p.m.		175	153	432	—	—	—	11½	—	175	11¼	29		
4–8 p.m.		175	153	437	—	—	—	11½	—	175	11¼	29	—	—
8–12 p.m.		175	153	440	—	—	—	11½	—	175	11¼	29	—	—
12–4 a.m.		175	153	440	—	—	—	11½	—	175	11¼	29	—	—
4–8 a.m.		175	153	432	—	—	—	11½	—	175	11¼	29	—	—
8 a.m.–Noon		175	153	433	—	—	—	11½	—	175	11¼	29	—	30-00

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	Air Pumps ~~Port~~ ~~Stbd~~ L. P. Thrust	Filter	Fwd to Boilers
Noon–4 p.m.	24	—	2½	—	124	106	104	78	66	94	—	122	108	202
4–8 p.m.	25	—	2½	—	118	106	108	80	66	94	—	126	108	200
8–12 p.m.	24	—	2½	—	116	106	108	80	66	94	—	126	106	200
12–4 a.m.	25	—	3	—	124	112	108	80	68	96	—	126	108	200
4–8 a.m.	25	—	3	—	120	110	106	78	68	98	—	124	108	204
8 a.m.–Noon	24	—	3	—	120	110	104	82	70	100	—	124	108	204

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circ Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Outlet	At Ash Pits	At Furnaces
Noon–4 p.m.	93690	15840	66	125		—	—	720	—	34	3	—	—
4–8 p.m.	10020	16330	68.1	120		—	—	720	—	36	3	—	—
8–12 p.m.	26770	16950	70.6	122		—	—	720	—	36	3		
12–4 a.m.	43860	17090	71.2	125		—	—	720	—	36	3	—	
4–8 a.m.	59480	15620	65.1	125		—	—	720	—	36	3		
8 a.m.–Noon	76590	17110	67.1	125		—	—	720	—	36	3	—	

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING ~~Steering Machinery~~	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	~~Refuse~~	DENSITY OF BOILERS Port Fwd
							L. P. Pinion Temp. 123°	24 hrs.		24 hrs.		Ash 228 Bkts. 8.1 Tons	Stbr Fwd
													Port Aft
													Stbr Aft

FROM Ponta-del-gada **TOWARDS** New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m. Evap 4 hrs Ash 38 bkts	P.M. Date Tuesday July 13th Found cause of poor vacuum—wooden plug in leak-off pipes cracked & drawing air
4–8 p.m. Chief Engr 4 hrs O.T. 2nd " 4 " " 3rd " 4 " " 4th " 4 " "	Self again overhauling condensate pump Evap 4 hrs Ash 37 bkts
8–12 p.m.	Condensate pump running ½ hr then stopped Superheater tubes cleaned Evap 4 hrs Ash 40 bkts
12–4 a.m.	A.M. Date Wed July 14th Evap 4 hrs Ash 40 bkts
4–8 a.m.	Called out at 2-0 A.M. Weir pump not pumping Stayed down till matters righted themselves Evap 4 hrs Ash 37 bkts
8 a.m.—NOON Light northerly wind	Evap 4 hrs Ash 36 bkts

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	414	5	—	—	30	8	270	13	21	14	507						
DAYS CONSUMPTION	42	6	—	—	—	14	6	10	—	10	50						
CARRIED FORWARD	456	11	—	—	31	2	277	3	22	4	457						

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
24	15	68 98940	8.84 214.3	7.21 175	18.1%	2 lbs.	Main & Aux condr & feed heater	—

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

Engineers on 6 hrs. watch
Chief & 3rd 6-12 2nd & 4th 12 to 6

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE XXX Strainer Boilers	Before Man'uvre Valve	Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	Aft	Gland Steam Press	VACUUM Guage	Kenoto Meter	BAROMETER
Noon—4 p.m.		170	150	432	—	—	—	1½	—	170	1¼	29	—	—
4—8 p.m.		170	150	440	—	—	—	1½	—	170	1¼	29	—	—
8—12 p.m.		170	150	440	—	—	—	1½	—	170	1¼	29	—	—
12—4 a.m.		170	150	436	—	—	—	1½	—	170	1¼	29	—	—
4—8 a.m.		170	150	433	—	—	—	1½	—	170	1¼	29	—	—
8 a.m.—Noon		170	150	435	—	—	—	1½	—	170	1¼	29	—	29-9

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	Air Pumps XXXX Wet	Dry L.P. Thrust	Filter	Feed to Boilers
Noon—4 p.m.	24	—	3	—	130	118	106	77	70	100	—		132	108	205
4—8 p.m.	25	—	3	—	130	118	105	77	70	99	—		130	109	205
8—12 p.m.	25	—	3	—	130	118	110	80	70	100	—		130	108	206
12—4 a.m.	24	—	3	—	130	118	109	80	70	100	—		128	102	200
4—8 a.m.	24	—	3	—	130	118	110	80	68	100	—		130	110	206
8 a.m.—Noon	25	—	3	—	130	118	110	84	70	100	—		130	110	206

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	83620	7030	40.1		125	—	—	720	—	34	3	—	—
4—8 p.m.	99290	15670	65.3		125	—	—	720	—	34	3	—	—
8—12 p.m.	15690	16100	68.3		125	—	—	720	—	34	3	—	—
12—4 a.m.	32830	17140	71.4		125	—	—	720	—	34	3	—	—
4—8 a.m.	49860	17030	71		125	—	—	720	—	34	3	—	—
8 a.m.—Noon	67930	18070	71.7		125	—	—	720	—	34	3	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING XXXX REFRIG MACHINERY L. P. Pinion Temp.	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	XXXX DISTILLER Ash 224 Bkts.	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft
							126°	22	hrs.	24	hrs.	8 Tons				

FROM Ponta-del-gada TOWARDS New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m. Evap 2 hrs Ash 30	P.M. Date Wednesday July 14th Stopped at 12-0 noon to make alterations & improvements
4–8 p.m. Stopped 1 hr 10 minutes Evap 4 hrs Ash 41 Chief ~~Engr 4 hrs OT~~	in auxiliary machinery. Took off condensate pump delivery valve and attached same to hose pipe leading from Hotwell to auxiliary condenser—upon trial same
8–12 p.m. " 4 " " 2nd " 4 " " 3rd " 4 " " 4th " 4 " "	did not prove successful, reverted back to old method Took up to Captain Lam Suey to be logged for using bad language and insudordination. Steam back to 110 lb. Would not endeavor to better it. Evap 4 hrs Ash 40
12–4 a.m.	A.M. Date Thursday July 15th Poor steam at beginning of watch Evap 4 hrs Ash 37 bkts
4–8 a.m.	Called at 4-0 AM. Engineers could not keep water in boilers. Evap 4 hrs Ash 30 bkts
8 a.m.—NOON Opened up Cross bunker at 10-0 A.M. Coal taken in Azores finished	At 10-30 AM. auxiliary condenser stopped; upon examination found steam, Piston valve broken beyond repair. Radojet exhausting now into TANK. Evap 4 hrs Ash 38 bkts

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	1456	11	—	—	31	2	277	3	21	14	457	—
DAYS CONSUMPTION	42	6	—	—	—	14	6	10	—	10	50	—
CARRIED FORWARD	1498	17	—	—	31	16	283	13	22	4	407	—

OILS

TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		65.9	8.5	5.67		1½ lbs.	Main & aux condr & feed heater	
23	6	91340	196.3	131	34.1%			

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM: PRESSURE: Water Boilers	Before Man'uvre Valve	Temp°	STEAM PRESSURES: H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS: Forward	Aft	Gland Steam Press	VACUUM: Guage	Kenolo Meter	BAROMETER
Noon—4 p.m.		Various	—	—	—	—	—	1½	—	Var.	1¼	29	—	—
4—8 p.m.		Various	—	—	—	—	—	1½	—	Var.	1¼	29	—	—
8—12 p.m.		175	153	432	—	—	—	1½	—	175	1¼	29	—	—
12—4 a.m.		175	153	430	—	—	—	1½	—	175	1¼	29	—	—
4—8 a.m.		175	153	436	—	—	—	1½	—	175	1¼	29	—	—
8 a.m.—Noon		175	153	430	—	—	—	1½	—	175	1¼	29	—	

	OIL PRESSURES: Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES: Cooler Inlet	Cooler Outlet	TEMPERATURES: Eng Room	Stoke hold	Sea	Disch	L.P. Exhaust Steam	XXXXX Wet	Dry	Filter	Feed to Boilers
												L.P. Thrust			
Noon—4 p.m.	25	—	2½	—	126	114	110	76	70	99	—	130		106	204
4—8 p.m.	25	—	2½	—	126	114	108	80	70	102	—	130		105	204
8—12 p.m.	25	—	2½	—	124	108	112	80	70	102	—	130		105	204
12—4 a.m.	25	—	2½	—	128	110	112	80	70	102	—	130		105	208
4—8 a.m.	25	—	2½	—	128	110	108	82	70	102	—	130		105	204
8 a.m.—Noon	25	—	2½	—	128	110	110	82	70	102	—	130		105	204

	REVOLUTIONS: MAIN SHAFT: Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES: FEED PUMP: Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE: At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	81990	14060	58.5	125		—	—	720	—	34	3	—	—
4—8 p.m.	96480	14490	62.2	125		—	—	720	—	34	3	—	—
8—12 p.m.	13130	16550	69.8	125		—	—	720	—	36	3	—	—
12—4 a.m.	29260	16130	67.2	125		—	—	720	—	36	3	—	—
4—8 a.m.	46310	17050	71	125		—	—	720	—	36	3	—	—
8 a.m.—Noon	63990	17680	68.5	125		—	—	720	—	36	3	—	—

CLEARANCES VERIFIED DAILY: Finger Piece Reading: HP	IP	LP	Finger Piece Index: HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING: XXXXX Refrig. Machinery	EVAPORATOR: Port	Starbd	ELECTRIC LIGHT: Port	Starbd	XXXXX Distiller	DENSITY OF BOILERS
							L.P. Pinion Temp.					Ash 230 Bkts.	Port Fwd
													Star Fwd
													Port Aft
							126°	20 hrs.		24 hrs.		8 Tons	Star Aft

Ash 78 per Bucket

FROM Ponta-del-gada TOWARDS New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m. Vap 4 hrs Ash 42 Radojet exhausting into feed tank	P.M. Date Thursday July 15th Steam back to 100 lbs. Bad steaming coal. Throttle valve shut in till 2-0 PM. Practically stopped till 2-0 PM.
4–8 p.m. Stop 4-53 PM. Full ahd. 5-0 PM. Stopped 7 mins	While cleaning fires at 4-0 PM. steam went back to 90 lb. Turbines stopped while steam rose. Captain invited into stoke-hold by *me*. Vap hrs Ash 36
~~Chief~~ Engr 4 hrs OT 2nd " 4 " " 3rd " 4 " " 4th " 4 " "	A lot of water being lost through having no cooling outfit for Radojet exhaust-steam. Evap 4 hrs Ash 37
8–4 a.m.	A.M. Date Friday July 16th Firemen keeping good steam. Ship heading against gulf stream. Evap 4 hrs Ash 37
4–8 a.m.	Evap 4 hrs Ash 38
8 a.m.—NOON Course altered at noon. Ash 40	Evaporator being scaled and boxed up. Informed Captain that it would be better to make direct for Halifax and to get in Gulf Stream as soon as possible

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	1498	17	—	—	31	16	283	13	22	4	407	—					
DAYS CONSUMPTION	42	6	—	—	—	14	6	10	6	10	50	—					
CARRIED FORWARD	1541	3	—	—	32	10	290	3	22	14	357	—					

STEAMING TIME		Average Revs. Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Ship Per cent	Pressure	Where led to	Feed Heater Press
		66.5	8.6	50.7		2½ lbs.	Main condr & Feed heater	—
24	3	95960	206.8	122	34.8%			

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE XXXX Boilers	Before Man'uvre Valve	Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	Aft	Gland Steam Press	VACUUM Guage	Kenoto Meter	BAROMETER
Noon—4 p.m.		170	150	434	—	—	—	1¼	—	170	1¼	29	—	—
4—8 p.m.		170	150	440	—	—	—	1¼	—	170	1¼	29	—	—
8—12 p.m.		170	150	440	—	—	—	1¼	—	170	1¼	29	—	—
12—4 a.m.		170	150	439	—	—	—	1¼	—	170	1¼	29	—	—
4—8 a.m.		170	150	436	—	—	—	1¼	—	170	1¼	29	—	—
8 a.m.—Noon		170	150	437	—	—	—	1¼	—	170	1¼	29	—	30-21

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	Air Pumps Wed	Dry	Filter	Feed to Boilers
Noon—4 p.m.	25	—	3	—	128	118	108	80	68	96	—	132		105	200
4—8 p.m.	25	—	3	—	130	118	108	82	68	96	—	132		106	202
8—12 p.m.	25	—	3	—	130	118	108	80	68	96	—	132		105	204
12—4 a.m.	25	—	3	—	126	116	109	80	67	96	—	126		106	204
4—8 a.m.	25	—	3	—	128	114	104	80	67	96	—	126		106	204
8 a.m.—Noon	25	—	3	—	130	116	105	80	67	96	—	126		106	204

L.P. Thrust

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	80970	16980	70.7	122		—	—	720	—	35	3	—	—
4—8 p.m.	97840	16870	70.1	122		—	—	720	—	35	3	—	—
8—12 p.m.	14420	16610	69.2	122		—	—	720	—	35	3	—	—
12—4 a.m.	30130	15710	65.4	122		—	—	720	—	35	3	—	—
4—8 a.m.	46560	16430	68.4	122		—	—	720	—	35	3	—	—
8 a.m.—Noon	63480	16920	68.8	122		—	—	720	—	35	3	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING XXXX Feed Machinery	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	XXXX DISTILLER Ash 237 Bkts.	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft
							L. McMahon Temp. 126°	24	hrs.	24	hrs.	8.2 Tons				

FROM Ponta-del-gada TOWARDS New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Friday July 16th ~~Keeping fairly good steam~~ ~~Evap 4 hrs Ash 39 bkts~~
4—8 p.m. Chief Engr 4 hrs OT 2nd " 4 " " 3rd " 4 " " 4th " 4 " "	Evap 4 hrs Ash 40 bkts
8—12 p.m.	New steam gauge & connection fitted in evaporator Evap 4 hrs Ash 40 bkts
12—4 a.m.	A.M. Date Saturday July 17th Evap 4 hrs Ash 40 bkts
4—8 a.m. Gentle N.Westerly Winds	Evap 4 hrs Ash 36 bkts
8 a.m.—NOON	Evap 4 hrs Ash 42 bkts

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	1541	3	—	—	32	10	290	3	22	14	357	—					
DAYS CONSUMPTION	~~42~~	~~6~~	—	—	—	~~14~~	~~6~~	~~10~~	—	~~10~~	~~50~~	—					
CARRIED FORWARD	~~1583~~	9	—	—	33	4	296	13	23	4	307	—					

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
24	12	~~68.5~~ 99520	~~8.9~~ 215.3	~~1.48~~ 181	16.8%	~~2 lbs.~~	Main condr & Feed heater	—

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE ~~After Strainer~~ Boilers	BOILER STEAM PRESSURE Before Man'uvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Guage	VACUUM Kenoto Meter	BAROMETER
Noon—4 p m		170	150	432	—	—	—	1¼	—	170	1¼	29	—	—
4—8 p.m.		170	150	437	—	—	—	1¼	—	170	1¼	29		
8—12 p.m.		170	150	436	—	—	—	1¼	—	170	1¼	29	—	—
12—4 a.m.		170	150	436	—	—	—	1¼	—	170	1¼	29	—	—
4—8 a.m.		170	150	440	—	—	—	1¼	—	170	1¼	29	—	—
8 a.m.—Noon		170	150	438	—	—	—	1¼	—	170	1¼	29	—	

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	Air Pumps ~~Max. X. Dep.~~ L.P. Thrust	Filter	Feed to Boilers
Noon—4 p.m.	25	—	3	—	120	115	107	72	64	96	—	120	102	202
4—8 p.m.	25	—	3	—	120	114	109	74	64	96	—	122	104	204
8—12 p.m.	25	—	2½	—	120	112	106	76	59	94	—	122	104	204
12—4 a.m.	25	—	2½	—	118	112	100	76	59	94	—	122	102	202
4—8 a.m.	25	—	2½	—	118	112	102	76	54	92	—	122	104	202
8 a.m.—Noon	26	—	2½	—	118	112	104	76	60	96	—	124	104	202

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	80370	16000	66.6	120		—	—	720	—	35	3	—	—
4—8 p.m.	96370	16890	70.3	120		—	—	720	—	35	3	—	—
8—12 p.m.	13080	16710	69.6	120		—	—	720	—	35	3	—	—
12—4 a.m.	29110	16030	66.8	120		—	—	720	—	36	3	—	—
4—8 a.m.	45990	16880	70.3	120		—	—	720	—	36	3	—	—
8 a.m.—Noon	64080	18090	70.9	120		—	—	720	—	36	3	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING ~~REFRIG MACHINERY~~ L.P. Pinion Temp.	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	~~VITALER~~ XXXX Ash	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft
							126°	24 hrs.		24 hrs.		233 Bkts. 8.1 Tons				

FROM Ponta-del-Gada TOWARDS New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Saturday July 17th
	Evap 4 hrs Ash 39 bkts
4—8 p.m.	Superheaters cleaned
	Evap 4 hrs Ash 38 bkts
8—12 p.m. Chief Engr. 4 hr OT 2nd " 4 " " 3rd " 4 " " 4th " 4 " "	Port Boiler smoke boxes cleaned
	Evap 4 hrs Ash 38 bkts
12—4 a.m.	A.M. Date Sunday July 18th
	Center Boiler smoke boxes cleaned
	Evap 4 hrs Ash 40 bkts
4—8 a.m. Light SW Wind Dense Fog	Superheaters cleaned Star'd Boiler smoke boxes cleaned
	Evap 4 hrs Ash 38 bkts
8 a.m.—NOON	
	Evap 4 hrs Ash 39 bkts

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	1583	9	—	—	33	4	296	13	23	4	307						
DAYS CONSUMPTION	42	6	—	—	—	14	6	10	—	10	50						
CARRIED FORWARD	1625	15	—	—	33	18	303	3	23	14	257						

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		69.2	8.9	8.01		2½ lbs.	Main Condr. & Feed Heater	1 lb.
24	12	100600	215.3	194	10%			

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE			STEAM PRESSURES							VACUUM		BAROMETER
		XXXX Steam Boilers	Before Man'uvre Valve	Temp°	H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	Gauge	Kenote Meter	
Noon–4 p.m.		160	140	438	—	—	—	1¼	—	160	1¼	29	—	—
4–8 p.m.		175	153	440	—	—	—	1¼	—	175	1¼	29	—	—
8–12 p.m.		175	153	440	—	—	—	1¼	—	175	1¼	29	—	—
12–4 a.m.		160	153	440	—	—	—	1¼	—	160	1¼	27	—	—
4–8 a.m.		175	153	446	—	—	—	1¼	—	175	1¼	29	—	—
8 a.m.–Noon		175	153	443	—	—	—	1¼	—	175	1¼	29	—	—

	OIL PRESSURES				OIL TEMPERATURES		TEMPERATURES								
	Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	Cooler Inlet	Cooler Outlet	Eng Room	Bilge hold	Sea	Dischg	L.P. Exhaust Steam	Air Pumps Wet	Air Pumps Dry	Filter	Fwd to Boilers
													L. P. Thrust		
Noon–4 p.m.	25	—	2½	—	118	105	96	74	58	95	—		116	108	200
4–8 p.m.	25	—	2½	—	118	102	94	74	58	96	—		116	103	208
8–12 p.m.	25	—	2½	—	118	100	100	74	58	95	—		116	103	202
12–4 a.m.	25	—	2½	—	118	100	102	74	58	95	—		116	104	202
4–8 a.m.	25	—	2½	—	118	102	96	74	58	95	—		116	108	206
8 a.m.–Noon	25	—	2½	—	118	102	96	74	58	95	—		116	108	206

	REVOLUTIONS					DOUBLE STROKES					AIR PRESSURE		
	MAIN SHAFT			Main Circg Pump	Oil Cooler Pump	FEED PUMP			Air Pump per Min	Oil Pump per Min	At Fan & Casing	At Ash Pits	At Furnaces
	Counter	Per Watch	Per Min			Counter	Per Watch	Per Hour					
Noon–4 p.m.	79440	65360	64		120	—	—	12 to 20 per min.	—	36		Opened	
4–8 p.m.	95620	16180	67.4		120	—	—	"	—	36		Out	
8–12 p.m.	12920	17300	72		120	—	—	"	—	30		Full	
12–4 a.m.	29120	16200	67.5		120	—	—	"	—	34		—	
4–8 a.m.	43970	14850	66		120	—	—	"	—	36		—	
8 a.m.–Noon	67250	18780	72.5		120	—	—	"	—	36		—	

CLEARANCES VERIFIED DAILY						SHAFT HORSE POWER	HOURS WORKING					DENSITY OF BOILERS
Finger Piece Reading			Finger Piece Index				XXXX Reading Machinery	EVAPORATOR		ELECTRIC LIGHT		
HP	IP	LP	HP	IP	LP			Port	Starbd	Port	Starbd	
							L. P. Piston Temp. 124°	24 hrs.		24 hrs.		Port Fwd
												Star Fwd
												Port Aft
												Star Aft

Ash 243 Bkts. 8.4 Tons

FROM Ponta-del-gada TOWARDS New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date—Sunday July 18th
	Evap 4 hrs Ash 39 bkts
4—8 p.m. Chief Engr. 4 hr. O.T. 2nd " 4 " " 3rd " 4 " " 4th " 4 " "	
	Evap 1 hrs Ash 38 bkts
8—12 p.m.	
	Evap 4 hrs Ash 41 bkts
~~Light~~ S.W. Winds Dense Fog	A.M. Date
	Evap 4 hrs Ash 44 bkts
4—8 a.m.	
	Evap 4 hrs Ash 41 bkts
8 a.m.—NOON	
	Evap 4 hrs Ash 40 bkts

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	1625	15	—	—	33	18	303	3	23	14	257	—					
DAYS CONSUMPTION	42	6	—	—	—	14	6	10	—	10	50	—					
CARRIED FORWARD	1668	1	—	—	34	12	309	13	24	4	207	—					

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Log	Slip Per cent	Pressure	Where led to	Feed Heater Press
24	15	~~069~~ 97370	~~8.6~~ 208.5	~~7.71~~ 177	10.4%	2 lbs.	Main Condenser & Feed Heater	1 lb.

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE ~~Taken Strainer~~ Boilers	BOILER STEAM PRESSURE Before Man'uvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Guage	VACUUM Kenoto Meter	BAROMETER
Noon–4 p.m.		170	150	433	—	—	—	1¼	—	170	1¼	29		
4–8 p.m.		170	150	440	—	—	—	1¼	—	170	1¼	29		
8–12 p.m.		175	153	439	—	—	—	1¼	—	175	1¼	29	—	—
12–4 a.m.		175	153	438	—	—	—	1¼	—	175	1¼	29	—	—
4–8 a.m.		165	147	432	—	—	—	1¼	—	165	1¼	29	—	—
8 a.m.–Noon		175	153	436	—	—	—	1¼	—	175	1¼	29	—	29-8

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	LP Exhaust Steam	Air Pumps ~~Wet~~ ~~Dry~~ L. P. Thrust	Filter	Feed to Boilers
Noon–4 p.m.	24	—	2½	—	108	94	102	74	58	95	—	112	101	200
4–8 p.m.	25	—	2½	—	108	94	100	80	58	96	—	112	104	198
8–12 p.m.	25	—	2½	—	108	94	100	80	58	96	—	112	104	198
12–4 a.m.	25	—	2½	—	110	96	98	76	58	96	—	112	106	196
4–8 a.m.	25	—	2½	—	110	96	100	80	58	96	—	112	106	200
8 a.m.–Noon	25	—	2½	—	110	96	102	80	58	96	—	112	106	200

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon–4 p.m.	78200	16750	69.7	120		—	—	720	—	34	3	—	—
4–8 p.m.	94700	16500	68.7	120		—	—	720	—	34	3	—	—
8–12 p.m.	12400	17700	73.7	120		—	—	720	—	34	3	—	—
12–4 a.m.	29490	17090	71.2	120		—	—	720	—	34	3	—	—
4–8 a.m.	45470	15989	66.5	120		—	—	720	—	34	3	—	—
8 a.m.–Noon	63690	18220	71.4	120		—	—	720	—	34	3	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING ~~Hydro Machinery~~ L. P. Pinion Temp.	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	~~Distiller~~ Ash 243 Bkts.	DENSITY OF BOILERS Port Fwd	
							118°	24 hrs.		24 hrs.		8.4 Tons	Star Fwd	
													Port Aft	
													Star Aft	

FROM Ponta-Delgada TOWARDS New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Monday July 19th
4–8 p.m. Chief Engr 4 hr. O.T. 2nd " 4 " " 3rd " 4 " " 3rd " 4 " "	Evap 4 Ash 39 bkts
8–12 p.m.	Evap 4 Ash 39 bkts
8–4 a.m.	A.M. Evap 4 Ash 42 bkts Date Tuesday July 20th
4–8 a.m. Moderate Wind Dense Fog	Evap 4 Ash 41 bkts
8 a.m.–NOON	Evap 4 Ash 39 bkts Evap 4 Ash 43 bkts

COAL CONSUMPTION	Main Engines		Refrig Machinery		Electric Lighting etc		Winches and Auxiliaries		Cooking and Heating		Total		OILS: Turbine Oil	Engine Oil	Paraffin	Colza	Cylinder
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts					
BROUGHT FORWARD	668	1	—	—	34	12	309	13	24	4	207	—					
DAYS CONSUMPTION	42	6	—	—	—	14	6	10	—	10	50	—					
CARRIED FORWARD	710	7	—	—	35	6	316	3	24	14	157	—					

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
24	14	70.3 102240	9.1 220.5	6.27 152	31.8%	2 lbs.	Main Condenser & Feed Heater	1 lb.

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE XXXX Boilers	BOILER STEAM PRESSURE Before Man'uvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Guage	VACUUM Kenofo Meter	BAROMETER
Noon–4 p m		150	125	398	—	—	—	1¼	—	150	1¼	26	—	—
4–8 p m.		170	147	432	—	—	—	1¼	—	170	1¼	29½	—	—
8–12 p m.		170	147	433	—	—	—	1¼	—	170	1¼	29½	—	—
12–4 a m.		150	125	410	—	—	—	1¼	—	150	1¼	26	—	—
4–8 a m.		150	125	410	—	—	—	1¼	—	150	1¼	26	—	—
8 a m.–Noon		170	147	433	—	—	—	1¼	—	170	1¼	29½	—	29-72

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	LP Exhaust Steam	XXXX L.P. Thrust Wet	Dry	Filter	Feed to Boilers
Noon–4 p m.	25	—	2½	—	110	94	92	73	56	94	—		112	106°	200°
4–8 p.m.	25	—	2½	—	110	94	96	73	56	95	—		112	104°	200°
8–12 p.m.	25	—	2½	—	110	96	92	73	56	94	—		112	104°	200°
12–4 a.m.	25	—	2½	—	110	95	86	73	56	94	—		112	106°	200°
4–8 a.m.	25	—	2½	—	110	96	88	73	56	94	—		112	106°	200°
8 a.m.–Noon	25	—	2½	—	110	96	92	73	56	94	—		112	106°	200°

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon–4 p m.	79160	15470	64.5	120		—	—	720	—	34	3	—	—
4–8 p.m.	95920	16760	69.8	120		—	—	720	—	35	3	—	—
8–12 p m	12660	16740	69.7	120		—	—	720	—	34	3	—	—
12–4 a m.	28050	15390	64.1	120		—	—	720	—	34	3	—	—
4–8 a.m.	43500	14450	60.2	120		—	—	720	—	34	3	—	—
8 a m.–Noon	60190	16690	66.1	120		—	—	720	—	34	3	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING XXXX L.P. Trunion Temp.	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	XXXX Ash 236 Bkts	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft
							118°	24 hrs.		24 hrs.		8.2 Tons				

FROM Ponta-Delgada TOWARDS New York via Sydney

WEATHER CONDITIONS	REMARKS
~~Chief~~ Engr 4 hr. O.T. 2nd " 4 " " 3rd " 4 " " 4th " 4 " "	P.M. Date Tuesday July 20th Very poor steam Evap 4 Ash 38 bkts
4–8 p.m.	Evap 4 Ash 36 bkts
8–12 p.m. S.S. W. Wind Rough Sea	Evap 4 Ash 42 bkts
12–4 a.m. Dense Fog	A.M. Date ~~Wed. July 21st~~ Evap 4 Ash 41 bkts
4–8 a.m.	Evap 4 Ash 39 bkts
8 a.m.—NOON	Evap 4 Ash 40 bkts

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	1710	7	—	—	35	6	316	3	24	14	157	—					
DAYS CONSUMPTION	42	6	—	—	—	14	6	10	—	10	50	—					
CARRIED FORWARD	1752	13	—	—	36	—	322	13	13	4	157	—					

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		65.8	8.5	4.76		2½ lbs.	Main Condenser & Feed Heater	1 lb.
24	10	95500	205.4	115	44.7%	CHIEF ENGINEER R. C. DONALDSON		

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE ~~Main~~ Boilers	Before Man'uvre Valve	Temp°	STEAM PRESSURES H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Gauge	Kenato Meter	BAROMETER
Noon–4 p.m.		160	135	420	—	—	—	1¼	—	160	1¼	27	—	—
4–8 p.m.		165	140	427	—	—	—	1¼	—	165	1¼	28	—	—
8–12 p.m.		170	150	433	—	—	—	1¼	—	170	1¼	29	—	—
12–4 a.m.		160	135	419	—	—	—	1¼	—	160	1¼	27	—	—
4–8 a.m.		170	150	434	—	—	—	1¼	—	170	1¼	29	—	—
8 a.m.–Noon		170	150	430	—	—	—	1¼	—	170	1¼	29	—	—

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L.P. Exhaust Steam	~~Wet~~ Dry L. P. Thrust	Filter	Fwd to Boilers
Noon–4 p.m.	26	—	2½	—	106	88	93	78	58	94	—	118	102	200
4–8 p.m.	26	—	2½	—	108	89	94	80	58	94	—	116	102	200
8–12 p.m.	26	—	2½	—	104	84	90	80	58	94	—	116	102	200
12–4 a.m.	26	—	2½	—	106	88	98	80	58	94	—	114	102	200
4–8 a.m.	26	—	2½	—	106	88	96	80	58	94	—	114	102	200
8 a.m.–Noon	26	—	2½	—	106	88	96	80	58	94	—	114	102	200

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circ Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE Air Pump Casing	Air Ash Pits	Air Purifiers
Noon–4 p.m.	75510	15320	63.8	120		—	—	720	—	34	3	—	—
4–8 p.m.	91830	16320	68	120		—	—	720	—	34	3	—	—
8–12 p.m.	08720	10890	70.3	120		—	—	720	—	34	3	—	—
12–4 a.m.	24620	15900	66.2	120		—	—	720	—	34	3	—	—
4–8 a.m.	42070	17450	72.7	120		—	—	720	—	34	3	—	—
8 a.m.–Noon	48900	6830	69	120		—	—	720	—	34	3	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING ~~MAIN~~ MACHINERY	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	~~DISTILLER~~ Ash	DENSITY OF BOILERS Port Fwd	
							P. Pilion Temp. 121°	21 hsr.		22 hrs.		200 Bkts. 6.9 Tons	Port Fwd	
													Star Fwd	
													Port Aft	
													Star Aft	

FROM Ponta-Delgada TOWARDS New York Sydney Arriving

WEATHER CONDITIONS	REMARKS
NOON—4 p.m. Chief Engr 4 hr. O.T. 2nd " 4 " " 3rd " 4 " " 4th " 4 " "	P.M. Date Wed. July 21st
4—8 p.m.	Evap 4 hrs Ash 40 Expecting to arrive Sydney Midnight
8—12 p.m.	Evap 4 hrs Ash 33 Received message to proceed Halifax. Distance then being 223 miles. With such a strong gale blowing at the time, and only having just sufficient bunkers we mutually decided that it was not safe to risk it after having got so far.
12—4 a.m. Mod S.W. Wind & Sea 4—8 a.m.	A.M. Date Evap 4 hrs Ash 34 Evap 4 hrs Ash 34 Evap 4 hrs Ash 34
8 a.m.—NOON	Arriving Sydney. Std by 9-20. Pilot 9-30 Anchored off Sydney 10-30. F. W. E. 10-45 Awaiting orders.

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	1752	13	—	—	36	—	322	13	25	4	107	—
DAYS CONSUMPTION	38	6	—	—	—	14	6	10	—	10	46	—
CARRIED FORWARD	1790	19	—	—	36	14	329	3	25	14	61	—

OILS

TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
21	29	68.2 88710	8.8 190.5	5.54 120	37.5%	2 lbs.	Main Condenser & Feed Heater	1 lb.

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO 4

ENGINEER'S LOG S.S. "Willdomino"

Engineers on 8 hrs. watch
Chief & 3rd 8-12 2nd & 4th 12 to 8

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE After Strainer	BOILER STEAM PRESSURE Before Man'uvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Gauge	VACUUM Kenyon Meter	BAROMETER
Noon–4 p.m.		140			Various									
4–8 p.m.		—			Anchor Watch									
8–12 p.m.		—			"		"							
12–4 a.m.		—			"		"							
4–8 a.m.		—			"		"							
8 a.m.–Noon		—			Various Movements									

	OIL PRESSURES Pump Discharge	OIL PRESSURES Cooler Outlet	OIL PRESSURES Bearings Mean	OIL PRESSURES Main Thrust	OIL TEMPERATURES Cooler Inlet	OIL TEMPERATURES Cooler Outlet	TEMPERATURES Eng Room	TEMPERATURES Stoke hold	TEMPERATURES Sea	TEMPERATURES Dieth	TEMPERATURES L.P. Exhaust Steam	TEMPERATURES Air Pumps Wet	TEMPERATURES Air Pumps Dry	TEMPERATURES Filter	TEMPERATURES Feed to Boilers
Noon–4 p.m.		Var					Var								
4–8 p.m.		—					—								
8–12 p.m.		—					—								
12–4 a.m.		—					—								
4–8 a.m.		—					—								
8 a.m.–Noon							—								

	REVOLUTIONS MAIN SHAFT Counter	REVOLUTIONS MAIN SHAFT Per Watch	REVOLUTIONS MAIN SHAFT Per Min	REVOLUTIONS Main Circg Pump	REVOLUTIONS Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	DOUBLE STROKES FEED PUMP Per Watch	DOUBLE STROKES FEED PUMP Per Hour	DOUBLE STROKES Air Pump per Min	DOUBLE STROKES Oil Pump per Min	AIR PRESSURE At Fan & Casing	AIR PRESSURE At Ash Pits	AIR PRESSURE At Furnaces
Noon–4 p.m.													
4–8 p.m.													
8–12 p.m.													
12–4 a.m.													
4–8 a.m.													
8 a.m.–Noon													

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER

HOURS WORKING REFRIG MACHINERY	EVAPORATOR Port	EVAPORATOR Starbd	ELECTRIC LIGHT Port	ELECTRIC LIGHT Starbd	DISTILLER

DENSITY OF BOILERS	
Port Fwd	
Star Fwd	
Port Aft	
Star Aft	

FROM Ponta-Delgada TOWARDS Sydney C.B.

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M Date July 22nd Thursday Moving from 1st Anchorage to Anchorage near coaling Wharf. Std by 5.15
4—8 p.m.	Fresh Water supplied Various movements till Anchored 6-40 P.M.
8—12 p.m.	All lights shut & Auxiliaries shut off to save fuel. But watches still kept.
12—4 a.m.	A.M. Date July 23rd Friday Evaporated Coils being sealed
4—8 a.m.	Coal used from arrival to MIDNIGHT 6 Ton Coal used 9 To nup to leaving Sydney
15 TONS USED in SYDNEY HARBOUR	
8 a.m.—NOON Moved from Wharf & Anchored 11-45	Moved with aid of Tug to Coal Wharf & received 62½ Ton Bunkers commenced bunkering 10-0 A.M. Finished 11-0 P.M.

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	1790	19	—	—	36	14	329	3	25	14	108	10					
DAYS CONSUMPTION											—	—					
CARRIED FORWARD	1790	19	—	—	36	14	329	3	25	14	108	10					

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Log	Slip Per cent	Pressure	Where led to	Feed Heater Press
24	10	95500	205.4	115	44.7%	—	Main Condenser	—

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

Engineers on 6 hr. watches
Chief & 3rd 6-12 2nd & 4th 12 to 6

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE: XXXX Boilers	Before Man'uvre Valve	Temp°	STEAM PRESSURES: H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS: Forward	Aft	Gland Steam Press	VACUUM: Guage	Kenoto Meter	BAROMETER
Noon—4 p m		175	160	430	—	—	—	1¼	—	175	1¼	29	—	—
4—8 p.m.		175	160	433	—	—	—	1¼	—	175	1¼	29	—	—
8—12 p.m.		175	160	430	—	—	—	1¼	—	175	1¼	29	—	—
12—4 a.m.		150	135	410	—	—	—	10"	—	150	1¼	26	—	—
4—8 a.m.		175	160	440	—	—	—	1¼	—	175	1¼	29	—	—
8 a.m.—Noon		170	—	—	—	—	—		—	—	—	—	—	—

	OIL PRESSURES: Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES: Cooler Inlet	Cooler Outlet	TEMPERATURES: Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	XXXXX L. P. Thrust: Wet	Dry	Filter	Feed to Boilers
Noon—4 p.m.	25	—	2½	—	110	98	98	86	65	98	—	116		107	202
4—8 p.m.	25	—	2½	—	110	98	102	86	65	98	—	116		108	202
8—12 p.m.	25	—	2½	—	110	98	104	84	65	98	—	116		108	202
12—4 a.m.	25	—	2½	—	102	86	102	84	56	94	—	113		108	200
4—8 a.m.	25	—	2¼	—	102	86	102	84	56	94	—	113		108	200
8 a.m.—Noon	25	—	2½	—	—	—	—	—	—	—	—	—			

	REVOLUTIONS: MAIN SHAFT: Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES: FEED PUMP: Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE: At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	68110	9190	124 mins. 74.1	120		—	—	720	—	34	3	—	—
4—8 p.m.	86180	18070	75.2	120		—	—	720	—	34	3	—	—
8—12 p.m.	04240	18060	75.2	120		—	—	720	—	34	3	—	—
12—4 a.m.	19930	15690	65.3	120		—	—	720	—	34	3	—	—
4—8 a.m.	33080	14150	58.9	120		—	—	720	—	34	3	—	—
8 a.m.—Noon	36080	3000	50	120		—	—	—	—	34	—	—	—

CLEARANCES VERIFIED DAILY: Finger Place Reading: HP	IP	LP	Finger Place Index: HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING: XXXXX MACHINERY: L. P. Pinion Temp.	EVAPORATOR: Port	Starbd	ELECTRIC LIGHT: Port	Starbd	XXXXX DISTILLER: Ash 115 Bkts.	DENSITY OF BOILERS: Port Fwd	
							121°	16 hrs.		24 hrs.		4 Tons	Star Fwd	
													Port Aft	
													Star Aft	

FROM Sydney, C. B. TOWARDS Halifax

WEATHER CONDITIONS	REMARKS
	July 23rd, Friday
NOON—4 p.m.	P.M. Date
	Left Sydney. Std. by 12:53. Half 1:4. Full 1:6. Stop 1:51. Full Away 1:56 P.M. Evap. 2 hrs.
4—8 p.m. 1st 4 hrs. O. T. 2nd 4 hrs. O. T. 3rd 4 hrs. O. T.	Firemen keeping good steam. Evap. 4 hrs. Ash 37 bkts.
8—12 p.m. 4th 4 hrs. O. T. Moderate W. S. W. Wind.	Firemen keeping good steam Evap. 4 hrs. Ash 38 bkts.
	July 24th, Saturday
12—4 a.m. Dense Fog	A.M. Date Whistle blowing constantly. Evap. 4 hrs. Ash 40 bkts.
4—8 a.m. Dense Fog	At 6:30 A.M. Engine Room Time. Ship struck some rocks or submerged object forward and Engines were instantly put Astern. Full Astern 6:30. Stop 6:37. Full Ast. 6:42. Stop 6:44. Half Ahd. 6:45. Stop 7:7. Slow 7:10 Stop 8:51. Slow 9:10. Stop 9:30. Anchored. All Ford. Tanks except not being pumped and after Peaks filled up.
Dense Fog 8 a.m.—NOON	

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	1790	19	—	—	36	14	329	3	25	14	108	10
DAYS CONSUMPTION	32	6	—	—	—	14	6	10	—	10	40	—
CARRIED FORWARD	1823	5			37	8	335	13	26	4	68	10

OILS

TURBINE OIL	ENGINE OIL	PARAFFIN	CO. Z4	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		62.5	8.1	696		2 lb.	Main Condenser and Feed Heater	1 lb.
20	50	78160	168.7	145	14.8%			

CHIEF ENGINEER R. G. Donaldson

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

Engineers on 6 hrs. watch
Chief & 3rd 6-12 2nd & 4th 12 to 6

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE After Stainer	BOILER STEAM PRESSURE Before Man'uvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Guage	VACUUM Kenoto Meter	BAROMETER
		XXX Boilers												
Noon—4 p m	—	170	150	438	—	—	—	1	—	170	1¼	29	—	—
4—8 p.m.	—	170	150	438	—	—	—	1	—	170	1¼	29	—	—
8—12 p m.		—	—	—	—	—	—	—	—	—	—	—	—	—
12—4 a.m.	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4—8 a.m.		—	—	—	—	—	—	—	—	—	—	—	—	—
8 a m.—Noon		—	—	—	—	—	—	—	—	—	—	—	—	—

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	LP Exhaust Steam	Air Pumps XXXXX Wet	Air Pumps XXXXX Dry	Filter	Feed to Boilers
												L. P. Thrust			
Noon—4 p m.	26	—	2½	—	110	98	102	81	58	92	—	115°		102	196
4—8 p.m.	26	—	2½	—	110	98	100	80	58	92	—	110°		100	190
8—12 p.m.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12—4 a.m.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4—8 a.m.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8 a.m.—Noon	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
	36080												
Noon—4 p m.	43400	7320	77.1	95 min. 120		—	—	Various		32	2½	—	—
4—8 p.m.	50530	7130	79.3	90 min. 120		—	—	Various		34	2½	—	—
8—12 p m.				—	—	—	—	—	—	—	—	—	—
12—4 a.m.	—	—	—	—	—	—	—	—	—	—	—	—	—
4—8 a.m.	—	—	—	—	—	—	—	—	—	—	—	—	—
8 a m.—Noon	—	—	—	—	—	—	—	—	—	—	—	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING REFRIG MACHINERY XXXX	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	XXXXX	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft
							L. P. Pinion Temp.									
							109°		—	24 hrs.						

FROM Sydney, C. B. TOWARDS Halifax

WEATHER CONDITIONS	REMARKS
NOON—4 p.m. After peaks full and No. 2 Tanks and No. 3 as empty as possible.	P.M. Date Saturday, July 24th Heaved anchor. Std. by 2:15. Slow Ah. 2:21. Full Ah. 2:25. Engine working well though very noisy when propeller lifted out of water. Stand by 5:45 F.W.E. and anchored 6:0 P.M.
4—8 p.m. Main Ballast Pump Suction and delivery Valves out of order.	~~Engineers keeping Anchor Watch and everything handy in case ship dragged~~ or No. 1 Bulkhead burst.
8—12 p.m. pumping out Ballast Tanks.	
12—4 a.m. Fresh S. W. Wind Mod. Sea Dense Fog	A.M. Date Sunday, July 25th ~~Standing by~~
4—8 a.m.	Engineers Standing by
8 a.m.—NOON Opened up Ahd. control Valve and found spindle broken completely in 2 pieces.	Turbines all ready for away. Slow ahd. rung on telegraph, opened up Valve and could not get steam to turbines. Assumed V. Spindle to be broken.

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	1823	5	—	—	37	8	335	13	26	4	68	10
DAYS CONSUMPTION	6	6	—	—	—	14	2	10	—	10	10	
CARRIED FORWARD	829	11	—	—	38	2	338	3	26	14	58	10

OILS

TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		78.1	10.1	1.9		4 lb.	Main Condenser and Heater	1 lb.
3	5	4450	31.1	6				

CHIEF ENGINEER R. G. Donaldson

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

Chief & 3rd 6-12 2nd & 4th 12 to 6
Engineers on 6 hr. watches

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE After Strainer	BOILER STEAM PRESSURE Before Man'uvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Gauge	VACUUM Kenoto Meter	BAROMETER
Noon—4 p.m.		—	—	—	—	—	—	—	—	—	—	—	—	—
4—8 p.m.		—	—	—	—	—	—	—	—	—	—	—	—	—
8—12 p.m.		175	160	440	—	—	—	½ lb.	—	175	1¼	29	—	—
12—4 a.m.		175	160	443	—	—	—	½ lb.	—	175	1¼	29	—	—
4—8 a.m.		175	160	442	—	—	—	½ lb.	—	175	1¼	29	—	—
8 a.m.—Noon		175	160	440	—	—	—	½ lb.	—	175	1¼	29	—29	—51

	OIL PRESSURES Pump Discharge	OIL PRESSURES Cooler Outlet	OIL PRESSURES Bearings Mean	OIL PRESSURES Main Thrust	OIL TEMPERATURES Cooler Inlet	OIL TEMPERATURES Cooler Outlet	TEMPERATURES Eng. Room	Stoke hold	Sea	Dish	L.P. Exhaust Steam	XXXXX L.P.	XXXXX Thrust	Filter	Fwd to Boilers
Noon—4 p.m.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4—8 p.m.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8—12 p.m.	20	—	2½	—	108	96	104	80	54	91	—		116°	104	200
12—4 a.m.	26	—	2½	—	108	96	98	79	54	92	—		116°	105	198
4—8 a.m.	26	—	2½	—	108	96	100	78	54	92	—		116°	107	200
8 a.m.—Noon	26	—	2½	—	108	96	102	84	54	92	—		116°	109	200

	REVOLUTIONS MAIN SHAFT Counter	REVOLUTIONS MAIN SHAFT Per Watch	REVOLUTIONS MAIN SHAFT Per Min	Main Circ. Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	FEED PUMP Per Watch	FEED PUMP Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fore Ceiling	At Ash Pits	At Funnel
Noon—4 p.m.	—	—	—	—	—	—	—	—	—	—	—	—	—
4—8 p.m.	65270	14740	70.2	210 mins. 120		—	—	Var.	—	35	3	—	—
8—12 p.m.	82810	17540	73.1	120		—	—	Var.	—	33	3	—	—
12—4 a.m.	99220	16410	68.4	120			—	Var.	—	34	3	—	—
4—8 a.m.				180 mins.									
8 a.m.—Noon	11910	12690	70.5	120		—	—	Var.	—	34	3	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER

HOURS WORKING XXXX Machinery	EVAPORATOR Port	EVAPORATOR Starbd	ELECTRIC LIGHT Port	ELECTRIC LIGHT Starbd	Overboard Ash
Temp. 112°	13 hrs.		24 hrs.		70 Bkts.

DENSITY OF BOILERS	
Port Fwd	
Star Fwd	
Port Aft	
Star Aft	

FROM Sydney, C. B. TOWARDS Halifax

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Sunday, July 25th Rejointing Hnd. Steam Control Valve cover, Valve and bottom half of Spindle left out. Impossible to work Turbine Astern.
4—8 p.m. Evap. 3 hrs.	
8—12 p.m. Evap. 3 hrs.	Std. by 8:0 P.M. Full 8:32. Std. by 10:34. Full 11:2 being escorted by "Lady Laurier." Making little more than 3½ Knots.
12—4 a.m.	A.M. Date Monday, July 26th Vessel pitching. Propeller coming out of water. Evap. 4 hrs. Ash 34 bkts.
4—8 a.m. Moderate Westerly Wind Heavy. Head Swell.	Vessel Pitching Evap. 4 hrs. Ash 36 bkts.
8 a.m.—NOON	Come to an Anchorage in Beaver Island. Std. by 10:54. Half 10:55. Full 10:56. Half 11:56. Stop 11:6. Visited by Captain of "Lady Laurier."

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS					
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER	
BROUGHT FORWARD	1829	11	—	—	38	2	338	3	26	14	58	10						
DAYS CONSUMPTION	24	6	—	—	—	14	4	10	—	10	30							
CARRIED FORWARD	1853	17	—	—	38	16	342	13	27	4	28	10						

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Ship Per cent	Pressure	Where led to	Feed Heater Press
		70.5	9.1	4.27		4 lb.	Main Condenser and Heater	1 lb.
14	30	61330	131.9	6.2	53.8%			

CHIEF ENGINEER R. C. Donaldson

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

Engineers on 6 hr. watches
Chief & 3rd 6-12 2nd & 4th 12 to 6

WATCH	ENGINEERS in CHARGE	BOILER STEAM PRESSURE			STEAM PRESSURES						VACUUM		BAROMETER
		~~Steam~~ Boilers	Before Man'uvre Valve	Temp°	H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	Guage	Kenyon Meter	
Noon–4 p m														
4–8 p.m.		170	150	436	—	—	—	½ lb.	—	170	1¼	29	—	—
8–12 p.m.		170	150	432	—	—	—	½ lb.	—	170	1¼	29	—	—
12–4 a.m.	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4–8 a.m.	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8 a.m.–Noon	—	—	—	—	—	—	—	—	—	—	—	—	—	29"–58

	OIL PRESSURES				OIL TEMPERATURES		TEMPERATURES								
	Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	Cooler Inlet	Cooler Outlet	Eng Room	Stoke hold	Sea	Dissh	~~Exhaust~~ Steam	Air Pumps Wet	Air Pumps Dry	Filter	Feed to Boilers
											L. P. Thrust				
Noon–4 p.m.															
4–8 p.m.	26	—	2½	—	108	96	106	84	54	91	—		116	107	200
8–12 p.m.	25	—	2½	—	108	96	110	88	54	90	—		116	107	206
12–4 a.m.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4–8 a.m.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8 a.m.–Noon	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

11910	REVOLUTIONS					DOUBLE STROKES					AIR PRESSURE		
	MAIN SHAFT Counter	MAIN SHAFT Per Watch	MAIN SHAFT Per Min	Main Circg Pump	Oil Cooler Pump	FEED PUMP Counter	FEED PUMP Per Watch	FEED PUMP Per Hour	Air Pump per Min	Oil Pump per Min	At Fan Casing	At Ash Pits	At Furnace
Noon–4 p.m.	14370	2460	68.4	36 m.	120	—	—	Var.	—	35	3"	—	—
4–8 p.m.	30850	16480	68.7	240 m.	120	—	—	Var.	—	35	3"	—	—
8–12 p.m.	47720	16870	70.3	240 m.	120	—	—	Var.	—	35	3"	—	—
12–4 a.m.	48340	620	69	9 m.	120	—	—	Var.	—	—	—	—	—
4–8 a.m.	—	—	—	—	—	—	—	—	—	—	—	—	—
8 a.m.–Noon	—	—	—	—	—	—	—	—	—	—	—	—	—

CLEARANCES VERIFIED DAILY						SHAFT HORSE POWER	HOURS WORKING						DENSITY OF BOILERS
Finger Piece Reading			Finger Piece Index				~~Main~~ Machinery	EVAPORATOR		ELECTRIC LIGHT		~~Donkey~~ Ash	
HP	IP	LP	HP	IP	LP		L. P. Pinion Temp.	Port	Starbd	Port	Starbd		Port Fwd
													Star Fwd
										24 hrs.			Port Aft
													Star Aft

FROM Sydney C.B. TOWARDS Halifax

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Monday July 26th Lady Laurier making fast Engines handy all the time. Slow Ahd 3-17.
4—8 p.m. Moderate wind and Sea.	Full Ahd 3-24.
8—12 p.m.	
12—4 a.m. Ford 19'-6" ~~Draft. AFT. 19'-6"~~	A.M. Date ~~Tuesday July 27th~~ Arriving Halifax Stand by 12-5. Half 12-16. Stop 12-21. Half 21-45. Stop 1-55.
~~4—8 a.m.~~	~~F.W.E. 2-20 Anchored.~~
8 a.m.—NOON	Being examined by Diver forard 50 tons Fresh Water received.

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD	1853	17	—	—	38	16	342	13	27	4	28	10					
DAYS CONSUMPTION	13	16	—	—	—	14	4	—	—	10	19						
CARRIED FORWARD	1867	13	—	—	39	10	346	13	27	14	9	10					

STEAMING TIME		Average Revs Per Min.	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		69.3	9	6.85		3½ lbs.	Main Condenser	1 lb.
8	45	36430	78.7	60			Feed Heater	

CHIEF ENGINEER ~~R. C. DONALDSON~~

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS in CHARGE	BOILER STEAM			STEAM PRESSURES						VACUUM		
		PRESSURE							EJECTORS				
		After Strainer	Before Man'uvre Valve	Temp°	H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	Forward	Aft	Gland Steam Press	Guage	Kenyon Meter	BAROMETER
Noon–4 p.m.														
4–8 p.m.														
8–12 p.m.														
12–4 a.m.														
4–8 a.m.														
8 a.m.–Noon														

	OIL PRESSURES				OIL TEMPERATURES		TEMPERATURES								
	Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	Cooler Inlet	Cooler Outlet	Eng Room	Stoke hold	Sea	Disch	L.P. Exhaust Steam	Air Pumps Wet	Air Pumps Dry	Filter	Feed to Boilers
Noon–4 p.m.															
4–8 p.m.															
8–12 p.m.															
12–4 a.m.															
4–8 a.m.															
8 a.m.–Noon															

	REVOLUTIONS					DOUBLE STROKES					AIR PRESSURE		
	MAIN SHAFT			Main Circ'g Pump	Oil Cooler Pump	FEED PUMP			Air Pump per Min	Oil Pump per Min	At For Casing	At Ash Pits	At Furnace
	Counter	Per Watch	Per Min			Counter	Per Watch	Per Hour					
Noon–4 p.m.													
4–8 p.m.													
8–12 p.m.													
12–4 a.m.													
4–8 a.m.													
8 a.m.–Noon													

CLEARANCES VERIFIED DAILY						SHAFT HORSE POWER	HOURS WORKING					DENSITY OF BOILERS	
Finger Piece Reading			Finger Piece Index				REFRIG MACHINERY	EVAPORATOR		ELECTRIC LIGHT		DISTILLER	
HP	IP	LP	HP	IP	LP			Port	Starbd	Port	Starbd		Port Fwd
													Star Fwd
													Port Aft
													Star Aft

FROM At Halifax TOWARDS

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date July 27th
150 Tons received 100 Grabs tallied	~~Commenced Bunkering 3-30~~ ~~Finished Bunkering 9-0 P.M.~~
4–8 p.m.	~~Heard Ship would probably be here~~ ~~10 days so blew off steam of Star &~~ ~~Centre Boilers to commence sealing~~
8–12 p.m.	Received orders from Mr. Rave to cancel ~~Boilers, through Check Valves passing back so~~ ~~much, it would be impossible for to get inside~~
July 28th	
12–4 a.m.	A.M. Date
	made fast at Harrison Wharf 2-0 P.M.
4–8 a.m.	Steam on deck Fore & Aft discharging cargo. Working all night
	~~3rd Engr on duty all night~~ ~~Dyckman on duty all night~~
8 a.m.—NOON	
Coal used 27th from ~~2-30 to midnight~~ 3½ tons " " 28th " ~~12-0 to~~ " 5 "	

COAL CONSUMPTION 8½ "

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD												
DAYS CONSUMPTION												
CARRIED FORWARD												

OILS

TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM			STEAM PRESSURES						VACUUM		BAROMETER
		PRESSURE			H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS	Gland Steam Press	Guage	Kenelo Meter	
		After Strainer	Before Man'uvre Valve	Temp^{e}					Forward Aft				
Noon–4 p.m.						Thursday July 29th							
4–8 p.m.													
8–12 p.m.		Steam on deck working cargo											
12–4 a.m.		Commenced taking Bunkers 1-0 P.M.											
4–8 a.m.		Fresh Water taken for E. R. purposes											
8 a.m.–Noon		Bunkers finished for the day 11-0 P.M. 183½ Tons											

	OIL PRESSURES				OIL TEMPERATURES		TEMPERATURES								
	Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	Cooler Inlet	Cooler Outlet	Eng Room	Stoke hold	Sea	Disch	L.P. Exhaust Steam	Air Pumps Wet	Air Pumps Dry	Filter	Fed to Boilers
Noon–4 p.m.	Auxiliary Condenser Pump Piston Valve														
4–8 p.m.	sent ashore for renewal														
8–12 p.m.	And Control Valve spindle sent ashore														
12–4 a.m.	for renewal														
4–8 a.m.	Evaporator being scaled														
8 a.m.–Noon	Boiler tubes & back ends being cleaned														

	REVOLUTIONS					DOUBLE STROKES					AIR PRESSURE		
	MAIN SHAFT			Main Circ. Pump	Oil Cooler Pump	FEED PUMP			Air Pump per Min	Oil Pump per Min	At Fan Casing	At Air Pipe	At Furnaces
	Counter	Per Watch	Per Min			Counter	Per Watch	Per Hour					
Noon–4 p.m.	Men in E. R. cleaning												
4–8 p.m.	Engineers pumping out forward Ballast												
8–12 p.m.	All the time the ship is rising forard												
12–4 a.m.	3rd Engr. on all night												
4–8 a.m.	Dykman all night												
8 a.m.–Noon													

CLEARANCES VERIFIED DAILY						SHAFT HORSE POWER	HOURS WORKING					DENSITY OF BOILERS
Finger Piece Reading			Finger Piece Index				REFRIG MACHINERY	EVAPORATOR		ELECTRIC LIGHT		DISTILLER
HP	IP	LP	HP	IP	LP			Port	Starbd	Port	Starbd	

Port Fwd	
Star Fwd	
Port Aft	
Star Aft	

FROM At Halifax TOWARDS

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Friday July 30th
4–8 p.m.	Steam on deck for cargo all day taking Bunkers up to 6-0 P.M. 274 tons taken on board
8–12 p.m.	Engine Room being cleaned Various glands on pumps packed Steam all let off Port Boiler
12–4 a.m.	A.M. Date to make joint on main Feed pipe line
4–8 a.m.	3rd Engr making joint
Coal used Thursday 8 a.m.–NOON. Friday	5½ 3½ 9 Tons

COAL CONSUMPTION

	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD												
DAYS CONSUMPTION												
CARRIED FORWARD												

OILS

TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM			STEAM PRESSURES							VACUUM		BAROMETER
		PRESSURE			H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS		Gland Steam Press	Gauge	Kenyon Meter	
		After Strainer	Before Man'vre Valve	Temp[r]					Forward	Aft				
Noon–4 p.m.														
4–8 p.m.														
8–12 p.m.														
12–4 a.m.														
4–8 a.m.														
8 a.m.–Noon														

Saturday July 31st

Started Centre Boiler fires set away

Boilers commenced circulating during afternoon. Finished circulating & 10 lbs

	OIL PRESSURES				OIL TEMPERATURES		TEMPERATURES									
	Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	Cooler Inlet	Cooler Outlet	Eng Room	Stoke hold	Sea	Dischr	L.P. Exhaust Steam	Air Pumps Wet	Air Pumps Dry	Filter	Feed to Boilers	
Noon–4 p.m.																
4–8 p.m.																
8–12 p.m.																
12–4 a.m.																
4–8 a.m.																
8 a.m.–Noon																

Steam on each Boiler 8-0 P.M.

Steam on deck all day for No 2 Hold

Ahd Steam Central Valve being rejointed new stud fitted in cover in place of broken one (drilled out)

Aux Condenser Piston Valve returned from

	REVOLUTIONS					DOUBLE STROKES					AIR PRESSURE		
	MAIN SHAFT			Main Circ Pump	Oil Cooler Pump	FEED PUMP			Air Pump per Min	Oil Pump per Min	At Fan Casing	At Ash Pits	At Purifiers
	Counter	Per Watch	Per Min			Counter	Per Watch	Per Hour					
Noon–4 p.m.													
4–8 p.m.													
8–12 p.m.													
12–4 a.m.													
4–8 a.m.													
8 a.m.–Noon													

Repair shop Engr rejointing same & trying pump

Dynamo running till 10.30 P.M.

2nd Engr on duty from 6-0 P.M.

3rd & 4th 4 hr O.T. during afternoon

Coal used 6 ton 10 cwt.

CLEARANCES VERIFIED DAILY						SHAFT HORSE POWER
Finger Piece Reading			Finger Piece Index			
HP	IP	LP	HP	IP	LP	

HOURS WORKING						DENSITY OF BOILERS
REFRIG MACHINERY	EVAPORATOR		ELECTRIC LIGHT		DISTILLER	
	Port	Starbd	Port	Starbd		Port Fwd
						Star Fwd
						Port Aft
						Star Aft

FROM At Hlaifax TOWARDS

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Sunday Aug. 1st
	No Steam required during day. fires
4—8 p.m.	banked. Dynamo started 7-0 P.M.
Coal used 1-10 T. cwt.	Watches started 12-0 P.M.
	Steam ordered for 6-0 A.M.
8—12 p.m.	Monday Aug. 2nd
12—4 a.m.	A.M. Date
	Turbines all ready & turn taken
424 tons Received	Engineers standing by till. Stand by
4—8 a.m.	3 low Astern. Steaming about
	Harbour. Adjusting compasses
15 tons coal used	various movements till Anchored
8 a.m.—NOON	Lying at anchor all night. Steam
Halifax	ordered for 6-0 A.M.
40½ tons coal used	

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD																	
DAYS CONSUMPTION																	
CARRIED FORWARD																	

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM			STEAM PRESSURES							VACUUM		BAROMETER
		PRESSURE			H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS		Gland Steam Press	Guage	Kenyon Meter	
		After Regulator	Before Man'uvre Valve	Temp°					Forward	Aft				
Noon–4 p m														
4–8 p.m.														
8–12 p.m.														
12–4 a.m.														
4–8 a.m.														
8 a.m.–Noon		170	150	430	—	—	—	10"	—	170	114	29	—	

	OIL PRESSURES				OIL TEMPERATURES		TEMPERATURES								
	Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	Cooler Inlet	Cooler Outlet	Eng Room	Stoke hold	Sea	Dieck	L P Exhaust Steam	Air Pumps Wet	Air Pumps Dry	Filter	Feed to Boilers
Noon–4 p m.															
4–8 p.m.															
8–12 p.m.															
12–4 a.m.															
4–8 a.m.															
8 a.m.–Noon	26	—	3	—	99	87	102	80	74	90	—	98°		104	196

	REVOLUTIONS					DOUBLE STROKES					AIR PRESSURE		
	MAIN SHAFT			Main Circg Pump	Oil Cooler Pump	FEED PUMP			Air Pump per Min	Oil Pump per Min	At Fan Casing	At Ash Pits	At Funnels
	Counter	Per Watch	Per Min			Counter	Per Watch	Per Hour					
Noon–4 p m.													
4–8 p.m.													
8–12 p.m.													
12–4 a.m.													
4–8 a.m.													
8 a.m.–Noon	61790	3160	39.6	120		—	—	Var.	—	85	—	—	—

CLEARANCES VERIFIED DAILY						SHAFT HORSE POWER	HOURS WORKING					DENSITY OF BOILERS	
Finger Piece Reading			Finger Piece Index					EVAPORATOR		ELECTRIC LIGHT			
HP	IP	LP	HP	IP	LP			Port	Starbd	Port	Starbd		
							Temp. 1040			120 min		Port Fwd	
												Star Fwd	
												Port Aft	
												Star Aft	

FROM Halifax TOWARDS New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Mon. Aug. 2nd Steaming about and working to orders from Bridge
4—8 p.m.	whilst adjusting compasses in Harbour Anchored till morning
8—12 p.m.	Steam ordered for 6-0 A.M.
12—4 a.m.	A.M. Date Tuesday Aug. 3 393 Tons in Bunkers Leaving Halifax
4—8 a.m.	~~July 27/8 8½ 424 Received~~ 29/30 9 9½ on arrival 31 6½ 1 1½ 433½ ~~2 15 40½~~
8 a.m.—NOON	40½ 393
Foggy	

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD	1867	13	—	—	39	16	346	13	27	14	393	
DAYS CONSUMPTION											5	
CARRIED FORWARD											388	

OILS	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD					
DAYS CONSUMPTION					
CARRIED FORWARD					

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		39.6	5.1	6.76		3 lbs.	Main & Aux. Condr. & Heater	1 lb.
1	20	3160	6.8	9				

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

Engineers on 6 hr. watches
Chief & 3rd 6-12 2nd & 4th 12 to 6

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE After Steamer	BOILER STEAM PRESSURE Before Man'uvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	EJECTORS Aft	G'and Steam Press	VACUUM Guage	VACUUM Kehoto Meter	BAROMETER
Noon—4 p m		170	150	4	—	—	—	10"	170	170	1¼	29	—	—
4—8 p m		170	150	4	—	—	—	10"	170	170	1¼	29	—	—
8—12 p m		170	150	4	—	—	—	10"	170	170	1¼	29	—	—
12—4 a m		170	150	4	—	—	—	10"	X	170	1¼	27	—	—
4—8 a m		170	150	4	—	—	—	10"	—	170	1¼	27	—	—
8 a m—Noon		170	150	4	—	—	—	10"	—	170	1¼	27	—30"-01	

XXXX Boilers

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	Air Pumps Wet	Air Pumps Dry	Filter	Feed to Boilers
Noon—4 p m	26	—	2½	—	90	80	103	80	54	88	—	100		112	200
4—8 p.m.	26	—	2½	—	90	80	98	80	54	88	—	100		104	204
8—12 p.m.	26	—	2½	—	90	80	96	80	54	88	—	100		110	200
12—4 a.m.	26	—	2½	—	90	80	98	80	54	88	—	98		108	220
4—8 a.m.	26	—	2½	—	90	80	100	80	54	88	—	96		108	200
8 a.m.—Noon	26	—	2½	—	90	80	100	80	59	92	—	96		108	206

XXXXX L. P. Thrust

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p m	71770	9980	41.6	120		—	—	Var.	—	34	2½	—	—
4—8 p.m.	82350	10580	44.1	120		—	—	Var.	—	34	2½	—	—
8—12 p m	92790	10440	43.5	120		—	—	Var.	—	34	2½	—	—
12—4 a m	03030	10240	42.7	120		—	—	Var.	—	34	2½	—	—
4—8 a.m.	13420	10390	43.3	120		—	—	Var.	—	34	2½	—	—
8 a m.—Noon	25530	12110	50.4	120		—	—	Var.	—	34	2½	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING XXXX BAFFLE MACHINERY	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	XXXX DISTILLER Ash	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft
							L. P. Pinion Temp. 108°	24	hrs.	24	hrs.	232 Bkts. 8.1 Tons				

79 lb. per bucket.

FROM Halifax TOWARDS New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m. Evap 4 hrs Ash 39	P.M. Date Aug 3rd Tuesday Telegraph at Slow Ahd Tug "Baldridge" tawing Radojet exhausting into Aux. Condenser
4–8 p.m.	Weir pumping direct to Boiler from Condenser Evap 4 hr Ash 39 bkts
8–12 p.m.	~~Coal very dirty~~ Evap 4 hr Ash 37 bkts
12–4 a.m. Moderate Wind & Sea	A.M. Date ~~Aug. 4th Wed.~~ Trouble with Feed Pump Evap 4 hr Ash 37 bkts
4–8 a.m.	~~Coal very dirty~~ ~~Evap 4 hr Ash 40 bkts~~
8 a.m.—NOON	Half Ahd 9.45 A.M. Evap 4 hr Ash 40 bkts

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD											388						
DAYS CONSUMPTION											— 10	42					
CARRIED FORWARD											346						

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		44.2	5.7	6.83		3½ lbs.	Main & Aux. Condr. ~~& Feed Heater~~	1 lb.
24	—	63740	136.8	164	—	CHIEF ENGINEER R. G. DONALDSON		

VOYAGE NO 4

ENGINEER'S LOG S.S. "Willdomino"

Engineers on 6 hrs. watch
Chief & 3rd 6-12 2nd & 4th 12 to 6

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE After Stretcher	BOILER STEAM PRESSURE Before Man'uvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Guage	VACUUM Kenoto Meter	BAROMETER
		XXX Boilers												
Noon—4 p.m.		170	150	427	—	—	—	6"	—	170	1¼	27	—	—
4—8 p.m.		170	150	430	—	—	—	6"	—	170	1¼	27	—	—
8—12 p.m.		170	150	430			—	6"		170	1¼	27	—	—
12—4 a.m.		170	150	428				6"		170	1¼	27	—	—
4—8 a.m.		170	150	428				6"		170	1¼	27	—	—
8 a.m.—Noon		170	150	430	—	—	—	6"	—	170	1¼	27	—30"-00	

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	LP Exhaust Steam	Air Pumps XXXXX L. P. Thrust	Filter	Feed to Boilers
Noon—4 p.m.	27	—	2½	—	90	80	98	78	58	92	—	100	105	202
4—8 p.m.	25	—	2½	—	90	80	102	80	58	92	—	100	104	206
8—12 p.m.	25	—	2½	—	90	80	100	80	58	92	—	100	105	204
12—4 a.m.	26	—	2½	—	94	83	100	80	64	99	—	106	105	200
4—8 a.m.	25	—	2½	—	96	84	102	80	64	98	—	104	105	200
8 a.m.—Noon	25	—	2½	—	96	84	96	80	64	98	—	106	106	202

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE At Fan Casing	At Ash Pits	At Furnaces
Noon—4 p.m.	37820	12290	51.2	120		—	—	Var.	—	34	2½	—	—
4—8 p.m.	50180	12360	51.5	120		—	—	Var.	—	34	2½	—	—
8—12 p.m.	62750	12570	52.3	120		—	—	Var.	—	34	2½		
12—4 a.m.	75200	12450	51.8	120		—	—	Var.	—	34	2½	—	—
4—8 a.m.	87650	12450	51.8	120		—	—	Var.	—	34	2½		
8 a.m.—Noon	99960	12310	51.3	120		—	—	Var.	—	34	2½	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING XXXX L. P. Pinion Temp.	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	XXXX Ash 254 Bkts.	DENSITY OF BOILERS Port Fwd	Star Fwd	Port Aft	Star Aft
							108°	24 hrs.		24 hrs.		8.9 Tons				

FROM Halifax TOWARDS New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Aug. 4th Wed.
	~~Being towed by Tug "Baldridge"~~
	Evap 4 hr Ash 43 bkts
4–8 p.m.	Very dirty coal
	Evap 4 hr Ash 42 bkts
8–12 p.m.	
	Evap 4 Ash 43 bkts
12–4 a.m.	A.M. Date ~~Aug. 5th Thurs.~~
Calm Smooth Sea	Evap 4 Ash 40 bkts
4–8 a.m.	Very dirty coal
	Evap 4 Ash 45 bkts
8 a.m.—NOON	
	Evap 4 Ash 41 bkts

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL	
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts
BROUGHT FORWARD											346	
DAYS CONSUMPTION											42	
CARRIED FORWARD											304	

OILS	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Press
		51.6	6.7	7.18		3½ lbs.	Main & Aux. Condr. & Feed Heater	1 lb.
24	14	74430	160.8	174				

CHIEF ENGINEER R. G. DONALDSON

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

Engineers on 6 hr. watches
Chief & 3rd 6-12 2nd & 4th 12 to 6

WATCH	ENGINEERS CHARGE	BOILER STEAM PRESSURE After Stopper Boilers	BOILER STEAM PRESSURE Before Man'uvre Valve	BOILER STEAM Temp°	STEAM PRESSURES H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Guage	VACUUM Remote Meter	BAROMETER
Noon–4 p.m.		170	150	436	—	—	—	1"	—	170	1¼	27	—	—
4–8 p.m.		170	150	438	—	—	—	1"	—	170	1¼	27	—	—
8–12 p.m.		170	150	440	—	—	—	1"	—	170	1¼	27	—	—
12–4 a.m.		170	150	440	—	—	—	1"	—	170	1¼	27	—	—
4–8 a.m.		170	150	—	—	—	—	1"	—	170	1¼	27	—	—
8 a.m.–Noon		170	150	—	—	—	—	1"	—	170	1¼	27	—	29.92

	OIL PRESSURES Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES Cooler Inlet	Cooler Outlet	TEMPERATURES Eng Room	Stoke hold	Sea	Disch	L.P. Exhaust Steam	Air Pumps ~~Wet~~ ~~Dry~~ L. P. Thrust	Filter	Feed to Boilers
Noon–4 p.m.	26	—	2½	—	96	84	98	82	64	98	—	108	107	200
4–8 p.m.	26	—	2½	—	98	84	104	84	64	—	—	108	100	198
8–12 p.m.	25	—	2½	—	100	87	106	84	67	100	—	109	101	204
12–4 a.m.	27	—	2½	—	100	87	106	84	67	101	—	109	101	205
4–8 a.m.	26	—	2½	—	100	87	108	84	67	100	—	110	107	204
8 a.m.–Noon	26	—	2½	—	100	87	106	84	67	100	—	110	104	204

	REVOLUTIONS MAIN SHAFT Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE Air Reg Closing	Air Reg Pilot	Air Purifier
Noon–4 p.m.	13080	13120	54.7	120		—	—	Var.	—	34	2½	—	—
4–8 p.m.	25840	12760	55.2	120		—	—	Var.	—	34	2½	—	—
8–12 p.m.	38800	12960	54	120		—	—	Var.	—	34	2½	—	—
12–4 a.m.	51540	12740	53.1	120		—	—	Var.	—	34	2½	—	—
4–8 a.m.	63940	12400	51.7	120		—	—	Var.	—	34	2½	—	—
8 a.m.–Noon	77090	13150	54.8	120		—	—	Var.	—	34	2½	—	—

CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER
						L. P. Pinion Temp. 110°

HOURS WORKING ~~MACHINERY~~	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	~~DISTILLER~~ Ash
	24 hrs.		24 hrs.		273 Bkts. 9.6 Tons

DENSITY OF BOILERS
Port Fwd
Star Fwd
Port Aft
Star Aft

FROM Halifax TOWARDS New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Aug. 5th Thursday In tow of Tug "Baldridge" Half & Full Speed. Vap 4 hrs Ash 46
4–8 p.m.	Feed pump constantly stopping Dirty Coal Evap 4 hr Ash 43
8–12 p.m.	Feed pump constantly stopping Evap 4 hr Ash 44
0–4 a.m.	A.M. Date Aug. 6th Friday Dirty Coal Evap 4 Ash 47
4–8 a.m. Light Airs Smooth Sea	Cleaning only 3 fires per watch Evap 4 hr Ash 47
8 a.m.—NOON	 Evap 4 hr Ash 46

COAL CONSUMPTION	MAIN ENGINES		REFRIG. MACHINERY		ELECTRIC LIGHTING ETC.		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD																	
24 HRS CONSUMPTION																	
CARRIED FORWARD																	

STEAMING TIME		Average Revs Per Min.	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Log	Slip Per cent	Pressure	Where led to	Feed Heater Press
		53.1	6.9	.708		4 lbs.	Main Condenser & Aux. Condr. & Heater	1 lb.
24	12	77130	166.9	171	—	CHIEF ENGINEER P. C. DONALDSON		

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino"

WATCH	ENGINEERS IN CHARGE	BOILER STEAM PRESSURE: Water Steamer	BOILER STEAM PRESSURE: Before Man'uvre Valve	BOILER STEAM: Temp°	STEAM PRESSURES: H P Ahead Inlet	H P Second Expansion	H P Exhaust	L P Inlet	EJECTORS: Forward	EJECTORS: Aft	Gland Steam Press	VACUUM: Guage	VACUUM: Kenoto Meter	BAROMETER
		XXXX Boilers												
Noon–4 p.m.		170	150	439	—	—	—	4"	—	170	1¼	27	—	
4–8 p.m.		170	150	440	—	—	—	4"	—	170	1¼	27	—	29 80
8–12 p.m.														
12–4 a.m.														
4–8 a.m.														
8 a.m.–Noon														

	OIL PRESSURES: Pump Discharge	Cooler Outlet	Bearings Mean	Main Thrust	OIL TEMPERATURES: Cooler Inlet	Cooler Outlet	TEMPERATURES: Eng Room	Stoke hold	Sea	Disch	L P Exhaust Steam	Air Pumps XXXXX L. P. Thrust	Filter	Feed to Boilers
Noon–4 p.m.	26	—	2½	—	100	88	102	84	67	100	—	108	107	203
4–8 p.m.	26	—	2½	—	100	88	104	84	67	100	—	—	106	200
8–12 p.m.														
12–4 a.m.														
4–8 a.m.														
8 a.m.–Noon														

	REVOLUTIONS: MAIN SHAFT: Counter	Per Watch	Per Min	Main Circg Pump	Oil Cooler Pump	DOUBLE STROKES: FEED PUMP: Counter	Per Watch	Per Hour	Air Pump per Min	Oil Pump per Min	AIR PRESSURE: At Fan Casing	At Ash Pits	At Furnaces
Noon–4 p.m.	90720	13630	56.8	120		—	—	Var.	—	34	2½	—	—
4–8 p.m.	00670	9950	55.3	180 m.		—	—	—	—	—	2½	—	—
8–12 p.m.													
12–4 a.m.													
4–8 a.m.													
8 a.m.–Noon													

CLEARANCES VERIFIED DAILY: Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER	HOURS WORKING: XXXXX MACHINERY L. P. Pinion Temp.	EVAPORATOR Port	Starbd	ELECTRIC LIGHT Port	Starbd	XXXXX DOWNER Ash 47 Bkts.	DENSITY OF BOILERS
							112°	7 hrs.		7 hrs.		1.7 Tons	Port Fwd
													Star Fwd
													Port Aft
													Star Aft

FROM Halifax TOWARDS New York

WEATHER CONDITIONS	REMARKS
NOON—4 p.m.	P.M. Date Tug "Baldridge" towing. Half & ~~Full Speed.~~ ~~Vap 4.~~ ~~Ash 47.~~
~~Voyage~~ finished Coal used from	Stand by Evap. 3 hr. Ash
~~Halifax~~ to New York	~~Anchor Watches kept.~~
0–4 a.m.	A.M. Date Aug. 7th Sat. Anchor Watches kept.
4–8 a.m.	Std by 4-30 Slow 5-0 Full 5.4 Std by 6.55 Half 7.5 Slow 7-9 Various movements till Anchored 8.17 A.M.
8 a.m.—NOON	Port & Centre Boiler banked Orders for steam Monday

COAL CONSUMPTION	MAIN ENGINES		REFRIG MACHINERY		ELECTRIC LIGHTING ETC		WINCHES AND AUXILIARIES		COOKING AND HEATING		TOTAL		OILS				
	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	Tons	Cwts	TURBINE OIL	ENGINE OIL	PARAFFIN	COLZA	CYLINDER
BROUGHT FORWARD											262						
DAYS CONSUMPTION											12						
CARRIED FORWARD											250						

STEAMING TIME		Average Revs Per Min	DISTANCE RUN			AUXILIARY EXHAUST STEAM		
Hours	Mins		By Engines	By Ship	Slip Per cent	Pressure	Where led to	Feed Heater Temp.
		~~56.1~~	~~7.2~~	~~8.14~~		3 lbs.	Main Aux. Condr.	1 18.
							Feed Heater	
7	—	23580	504	57				

R. G. DONALDSON
CHIEF ENGINEER

VOYAGE NO. 4

ENGINEER'S LOG S.S. "Willdomino" at New York

WATCH	ENGINEERS in Charge	BOILER STEAM PRESSURE After Stop Valve	BOILER STEAM PRESSURE Before Manœuvring Valve	BOILER STEAM Temp°	STEAM PRESSURES H.P. Ahead Inlet	H.P. Second Expansion	H.P. Exhaust	L.P. Inlet	EJECTORS Forward	EJECTORS Aft	Gland Steam Press	VACUUM Gauge	VACUUM Remote Meter	BAROMETER
Noon–4 p.m.														
4–8 p.m.														
8–12 p.m.						Saturday Aug. 7th								
12–4 a.m.		Steam raised 7-0 P.M. & Ship moved to safe												
4–8 a.m.		anchorage												
8 a.m.–Noon		3rd Engr. on duty.												

	OIL PRESSURES Pump Discharge	OIL PRESSURES Cooler Outlet	OIL PRESSURES Bearings Mean	OIL PRESSURES Main Thrust	OIL TEMPERATURES Cooler Inlet	OIL TEMPERATURES Cooler Outlet	TEMPERATURES Eng. Room	TEMPERATURES Hotwell	TEMPERATURES Sea	TEMPERATURES Glands	TEMPERATURES L.P. Exhaust Steam	TEMPERATURES Air Pumps Wet	TEMPERATURES Air Pumps Dry	TEMPERATURES Filter	TEMPERATURES Feed to Boilers
Noon–4 p.m.						Sunday Aug. 8th									
4–8 p.m.															
8–12 p.m.		Fires banked all day													
12–4 a.m.		Dynamo running from 6-30 P.M. to 10-30 P.M.													
4–8 a.m.		4th Engr. on duty.													
8 a.m.–Noon															

	REVOLUTIONS MAIN SHAFT Counter	REVOLUTIONS MAIN SHAFT Per Watch	REVOLUTIONS MAIN SHAFT Per Min.	REVOLUTIONS Main Circ. Pump	REVOLUTIONS Oil Cooler Pump	DOUBLE STROKES FEED PUMP Counter	DOUBLE STROKES FEED PUMP Per Watch	DOUBLE STROKES FEED PUMP Per Hour	DOUBLE STROKES Air Pump per Min.	DOUBLE STROKES Oil Pump per Min.	AIR PRESSURE At Fan Casing	AIR PRESSURE At Ash Pits	AIR PRESSURE At Funnel
Noon–4 p.m.													
4–8 p.m.						Monday Aug. 9th							
8–12 p.m.		Watches commenced 4-0 A.M. Steam raised											
12–4 a.m.		and Turbines made ready.											
4–8 a.m.													
8 a.m.–Noon													

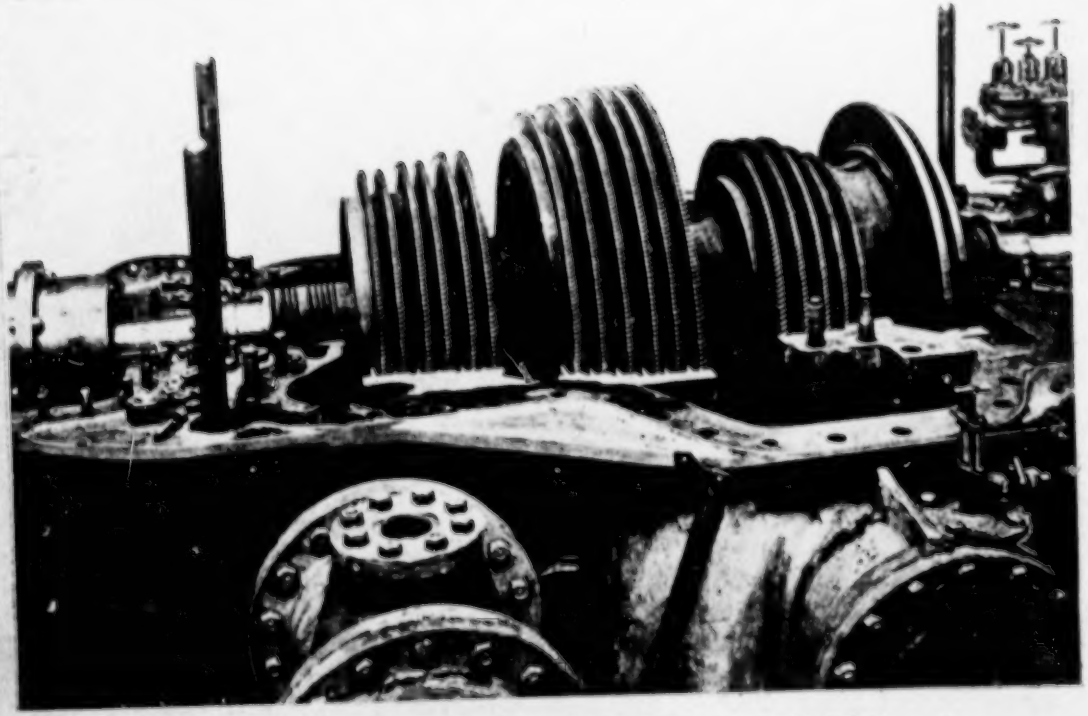
CLEARANCES VERIFIED DAILY Finger Piece Reading HP	IP	LP	Finger Piece Index HP	IP	LP	SHAFT HORSE POWER

HOURS WORKING REFRIG. MACHINERY	EVAPORATOR Port	EVAPORATOR Starbd	ELECTRIC LIGHT Port	ELECTRIC LIGHT Starbd	DISTILLER

DENSITY OF BOILERS	
Port Fwd	
Stor Fwd	
Port Aft	
Stor Aft	

Claimants Exhib 5 for Ident
Oct 16/20 Cmr.

Claimants Ex. 5



L.P. AHEAD AND L.P. ASTERN TURBINE. S.S. "DANIER."
WITH COVER REMOVED
FABRICATED (N. 1. CLASS) SHIPS.
FOR DESCRIPTION SEE PAGE 25.

Claimant's Exhibit T, for Identification.

3835

[Erroneously marked on original photostat as "S" for identification.]

(PHOTOSTAT)

(Page 24 of pamphlet of Parsons Marine Steam Turbine Co., Ltd.)

3836

3857

Claimant's Exhibit U.

3838

[Erroneously marked on original photostat as Exhibit "T".]

(PHOTOSTAT)

(Both sides)

3839

3840

Claimants Exhib T
Oct 16/20

Claimants Ex. T

Lloyd's Register of Shipping.

FOUNDED 1760. RE-CONSTITUTED 1834.

CERTIFICATE FOR ENGINES AND BOILERS.

No. 30863
11/520

No. 71, Fenchurch Street, E.C.,
LONDON, 23rd May, 1919.

This is to Certify *that the Engines and Boilers of the* Steel Screw Steamer "War Convoy"

of ~~London~~ Halifax *Master* Gillies *Tons* 5755 *have been Specially Surveyed by the Surveyors to this Society during construction at* Spokane Wash. & Vancouver B.C. *and were reported to be on the* 10th April 1919 *in good, efficient, and safe working condition, at a pressure of* 190 *lb. per square inch on the main boilers. The approved working pressure of the donkey boiler is* — *lb. per square inch.*

18-11-19

The Record ✠LMC 4.19 *(Lloyd's Machinery Certificate) has been made in the Register Book, subject to Periodical Surveys as required by the Rules.*

PARTICULARS OF ENGINES.

Description.	When Made.	Name and Address of Makers.	Diameter of Cylinders.	Length of Stroke.
2 Beam Turbines geared to 1 Screw Shaft	1919	The Hallidie Company Spokane, Wash.	/	/

Witness my hand,

F. J. Horn

Chairman of the Committees of Classification.

F. H. Maybe

Assistant to the Secretary.

This certificate is issued upon the terms of the Rules and Regulations of the Society, to which Owners are referred.

For convenience of Owners extracts from some of the principal Rules are printed on the back hereof.

Claimants Ex. 2
(Back)

EXTRACTS FROM THE SOCIETY'S RULES AND REGULATIONS.

While the Committee use their best endeavours to ensure that the functions of the Society are properly executed, it is to be understood that neither the Committee, nor the Society, are under any circumstances whatever to be held responsible for any inaccuracy in any report or certificate issued by the Society or its Surveyors, or in any entry in the Register Book or other publication of the Society, or for any error of judgment, default or negligence of the Surveyors, or other Officers or Agents of the Society.

Periodical and Occasional Surveys.—The machinery and boilers of all steam ships, and the donkey boilers of sailing vessels, are to be surveyed annually, if practicable, and in addition are to be submitted to a Special Survey upon the occasion of the vessel's undergoing the Special periodical Surveys Nos. 1, 2, and 3, prescribed in the Rules, unless the machinery and boilers have been specially surveyed within a period of twelve months.

* * * * *

The boilers of all steam ships, and the donkey boilers of sailing vessels, are to be specially surveyed when six years old, and subsequently they are to be surveyed annually.

* * * * *

The stern shaft is to be examined annually, and drawn at intervals of not more than two years. On the application of Owners, the Committee will be prepared to give consideration to the circumstances of any special case.

Survey of Repairs.—All repairs of vessels, engines and boilers that may be required at ports where there is a Surveyor to the Society, in order that the vessels may retain their characters in the Register Book, must be carried out under the inspection and to the satisfaction of the Society's Surveyor. When such repairs are effected at a port where there is no Surveyor to this Society, the vessel must be surveyed by one of the Society's Surveyors at the earliest opportunity.

Notice of Surveys.—Whilst the Society's Surveyors are required to attend for the purpose of holding surveys in their district, the duty of giving notice when the attendance of the Surveyors is required to carry out Periodical Special Surveys or to supervise repairs rests with the Owners, Masters or Agents. If such notice is not given and the requisite surveys are not carried out, the characters of vessels are liable to be expunged from the Register Book.

No. 71, Fenchurch Street,
London, E.C.

ANDREW SCOTT,
Secretary.

* [N.B.—It is to be understood that the foregoing requirements are subject to amendments made by the Committee from time to time.]

Claimant's Exhibit V.

3841

SALVAGE ASSOCIATION, LONDON
Halifax Office
Pickford & Black's Wharf,
Halifax,
Nova Scotia

Telephone Sackville 1826

CERTIFICATE OF SEAWORTHINESS
SS "WILLDOMINO" of Halifax, N. S.

G. T. R 5755.

3842

This is to Certify that the undersigned Surveyor at this port did at the request of Messrs. Pickford & Black, Ltd., and in behalf of Underwriters concerned make Survey of SS "WILLDOMINO" G. T. R5755 of Halifax, N. S., then at anchor in stream at Halifax, N. S., on July 27th, 1920, and subsequent dates in order determine nature and extent of damage alleged caused by striking on Gannett Rock vicinity White Island on or about July 24th, 1920 and whilst on a voyage from Lisbon, via Sydney N. S., for bunkers, to New York loaded General Cargo; about 2/3 of which consists bale cork

3843

For fuller particulars see Log Books and Protest.

UPON

EXAMINATION

Found:—Stem bar, plating and floors shoved back some six feet abaft C/B at about 5 ft. mark, fore peak full water sea level (20 ft. draft) No. 1 hold (loaded bale cork) similarly flooded.

Bulkhead between Nos. 1 & 2 not leaking.

Claimant's Exhibit V.

3844 All after ballast including After peak had been filled up draft aft 13‴.

After due consultation with representatives various interests including Capt. Gillboy for Owners, the following was decided upon and therefore

RECOMMENDED

as a temporary repair sufficient take vessel to New York where further survey and repairs proper are to be made.

No. 1 hold remove and restore elsewhere in vessel cargo (weight) ex tween decks this hold.

3845 No. 2 hold remove sufficient cargo and stow same after holds, permit effectively shoring up No. 2 Bulkhead.

Fit pump fore end this hold for possible minor leaks and emergency purposes.

Trim vessel to a draft sufficient immerse propeller, leaving draft 14 or 15 ft. forward.

Tug to accompany vessel in charge coastal Pilot to New York.

Vessel must NOT be forced into a head sea.

With aforegoing temporary repairs now completed this renders SS "WILLDOMINO" SEA-

3846 WORTHY from Halifax, N. S. to New York.

This Report and Certificate given without prejudice and subject to Terms of Policy.

P. W. WILSON,
Surveyor to Salvage Association, London.
Halifax, August 2/20.

Claimant's Exhibit W.

3847

AN ACT

TO PROVIDE FOR THE APPOINTMENT OF PORT WARDENS AT CERTAIN PORTS OF THE DOMINION.

(Assented to 26th, May, 1874.)

WHEREAS the increasing trade and business in many of the ports of the Dominion, at which no provision now exists for the appointment of Port Wardens, renders it necessary to make such provision: Therefore Her Majesty, by and with the advice and consent of the Senate and House of 3848
Commons of Canada, enacts as follows:—

1. The Governor in Council may, from time to time, determine at what ports in the Dominion, it is expedient that Port Wardens should be appointed, and at and for any such port a Port Warden may be appointed under this Act, by the Governor: Provided always that this Act shall not apply to the Ports of Quebec, Montreal and Saint John, New Brunswick, for which provision is already made.

2. The Port Warden shall receive no fees whatever, other than such as strictly appertain to the 3849
business of his office; all such fees shall be recorded in his book; and he shall make a certified annual return to the Minister of Marine and Fisheries, of the receipts and expenses of his office and a report of the doings of his office, within seven days after the thirty-first day of December in each year.

3. The Port Warden shall, at his own expense, keep an office during the season of navigation,

3850 and shall have a seal of office, and the necessary books, in which all his acts as Port Warden shall be recorded, which books shall be open for inspection on payment of a fee of twenty-five cents.

4. It shall be the duty of the Port Warden, on being notified and requested by any of the parties interested, to proceed in person on board of any vessel for the purpose of examining the condition and stowage of her cargo; and if there be any goods damaged on board such vessel, he shall inquire, examine, and ascertain the cause or causes of such damage, and make a memorandum
3851 thereof, and enter the same in full on the books of his office.

5. The master of any vessel which has broken bulk for the purpose of lightening or other necessary purpose, previous to her arrival in any harbor for which there is then a Port Warden, shall, immediately on the discovery of any damaged cargo, proceed to have a survey held on the same in the manner herein prescribed, before the same shall be moved out of the place in which it was originally stowed; and if, after the arrival in
3852 port of any vessel from beyond the seas, or from a passage over the great lakes contiguous to the Province of Ontario, which has not had occasion to lighten, break bulk, or otherwise discharge any portion of her cargo before coming into the harbour, the hatches of such vessel shall have been first opened by any person not a Port Warden, and the cargo or any part thereof shall come from on board such ship in a damaged condition, these facts shall be *prima facie* evidence that such damage occurred in consequence of improper stow-

age or negligence on the part of the persons in charge of the vessel; and such default shall, until the contrary be shewn, be chargeable, to the owner, master or other persons interested as part owners or master of the said vessel. 3853

6. The Port Warden shall, when required, proceed to any ship steamer or other vessel, warehouse, dwelling or wharf, and examine any merchandise, vessel, material, produce and other property, said to have been damaged on board any vessel, and enquire, examine and ascertain the cause of such damage, make a memorandum thereof, and of such property, and record in the books of his office a full and correct statement thereof. 3854

7. The Port Warden shall, when required, be surveyor on any vessel which may have suffered wreck or damage, or which shall be deemed unfit to proceed on her voyage; he shall examine the hull, spars, rigging and all appurtenances thereof, shall specify what damage has occurred, and record in the books of his office, a full and particular account of all surveys held on such vessels; he shall call to his assistance, if necessary, in such surveys, one or more carpenters, sail-makers, riggers, shipwrights or other persons skilled in their profession, who shall each be entitled to a fee not exceeding five dollars, to aid him in the examination and survey; but no such surveyor shall be interested in the case; the Port Warden shall also, if required, be surveyor of the repairs necessary to render such vessel seaworthy, and his certificate that these repairs have been properly made shall be evidence that the vessel is seaworthy. 3855

Claimant's Exhibit W.

3856 8. The Port Warden shall have cognizance of all matters relating to the surveys of vessels and their cargoes, arriving in port damaged, and when requested shall, on payment of the regular fee, give certificate of such surveys.

9. The master of any vessel intending to load grain in bulk, for any port not within the limits of inland navigation nor within the Dominion of Canada, shall, before taking in any of such grain, notify the Port Warden from time to time while the different chambers are being prepared, to survey and inspect the said vessel as well as
3857 the dunnage and lining boards; the Port Warden in such case shall ascertain whether such vessel is in a fit state to receive and carry the cargo intended for her to its destination; he shall record in his books the condition of the vessel; if he finds she is not fit to carry the cargo in safety, he shall state what repairs are necessary to render her seaworthy; before beginning to load each chamber he shall be careful to see that it is properly dunnaged and lined, and provided with shifting boards, and that the board and plank used for these purposes have been prop-
3858 erly seasoned; he shall examine the pumps and see that they are properly lined and dunnaged; he shall enter in the books of his office all particulars connected with these surveys, and grant the necessary certificates.

10. It shall be the duty of the Port Warden, when required, to decide what amount of dunnage is necessary below cargo, and also between wheat and other grain, and the flour to be stowed over it, and his certificate that such dunnage

has been used, shall be *prima facie* evidence of 3859
the good stowage of the cargo so far as these points are concerned.

11. The master of any vessel wholly or partly laden with grain, for any port not within the limits of inland navigation nor within the Dominion of Canada, shall, before proceeding on his voyage, or clearing at the Custom House for the same, notify the Port Warden, whose duty it shall then be to proceed on board such vessel, and examine whether she is in a fit state to proceed to sea or not; if she is found unfit, the Port Warden shall state in what particulars, and on 3860
what conditions only she may be deemed in a fit state to leave, and shall notify the master not to leave the port until the required conditions have been fulfilled; and in case of the master refusing or neglecting to fulfil the same, the Port Warden shall notify the Collector of Customs, in order that no clearance may be granted fo. the vessel until such required conditions have been fulfilled, and a certificate thereof granted by the Port Warden or his deputy.

12. The Port Warden shall, when required, 3861
estimate the value and measurement of any vessel, when the same is in dispute or otherwise needed, and shall record the same in the books of his office.

13. It shall be the duty of every auctioneer making a sale of any vessel condemned, or ship's materials, or goods damaged on board a ship or vessel, whether sea-going or of inland navigation, sold for benefit of underwriters or others

3862 concerned, in any harbour for which there is then a Port Warden, to file a statement of the same at the office of the Port Warden within ten days after such sale; no underwriters' sale shall take place until after at least two days' public advertisement or notice, and such sale shall not be at an hour earlier than eleven, nor later than three o'clock in the day.

14. It shall be the duty of the Port Warden, when required in writing by all parties in interest, to hear and arbitrate upon any difficulty or matter in dispute between the master or con-
3863 signee of any vessel, and any proprietor, shipper or consignee of the cargo, and to keep a record thereof.

15. No goods, vessels or other property at a place where there is a Port Warden, shall be sold as damaged for account of underwriters, unless a regular survey and condemnation has previously been had, and the Port Warden shall in all cases be one of the surveyors.

16. Before proceeding to act in any case in the performance of his duties, the Port Warden
3864 shall give reasonable notice, where practicable, to all parties interested or concerned in the case.

17. All notices, requests, or requirements to or from the Port Warden must be given in writing, and a reasonable time before action is required.

18. The Port Warden may in any case where he thinks it right and necessary, initiate proceedings, and hold surveys, and obtain process, as if

required by the parties concerned under the provisions of this Act,—and whenever the Port Warden is mentioned in any provision of this Act, such provision shall always be understood to apply to any Deputy Port Warden, if there is such. 3865

19. On the demand of any party interested, the Port Warden shall furnish certificates in writing under his hand, if any matters of record in his office; he shall also furnish when required, copies of any entries in his books or documents filed in his office, upon payment of a reasonable compensation.

3866

20. On application, the Port Warden shall supply, to any master of a vessel arriving in the harbor, a copy of the regulations relating to the office of Port Warden, once in each year.

21. In all matters regarding surveys, and other matters concerning the value, state or classification of vessels and like subjects, the Port Warden shall conform to, and be governed by the regulations of Lloyd's, so far as they are applicable to the circumstances of the case.

22. Should any dispute arise between the Port Warden and any party interested in any case where his presence has been required, either party may appeal to the council of the board of trade or chamber of commerce, where there is one, and it shall be the duty of the Secretary of such board or chamber, on a requisition being presented to him to that effect, to summon forthwith a meeting of the said council who, or not less than three of them, shall immediately investigate and report on the case submitted to them, and 3867

3868 their determination or that of a majority of them, made in writing, shall be final and conclusive.

23. The party against whom the council of the board of trade or chamber of commerce shall decide, shall pay all expenses, and the council shall determine the amount of fees or charges payable in each case, which shall never exceed twenty dollars.

24. All certificates issued under the hand of the Port Warden or his Deputy, and sealed with the seal of his office, referring to matters recorded
3869 in his books, shall be received as *prima facie* evidence of the existence and contents of such record, in any court in Canada.

25. The council of the board of trade or chamber of commerce, if there is one, may, from time to time, establish a tariff of fees to be paid to the Port Warden for services performed by him and his deputies, by the master or owners of seagoing vessels, and by others in respect of whom the duties of the said Port Warden are required to be performed,—which tariff, being first approved by the Governor in Council, shall
3870 be enforced until repealed or altered by the said Governor in Council, or by the said council of the board of trade or chamber of commerce, as it may be at any time, with the approval of the Governor in Council; and when there is no board of trade or chamber of commerce the Governor in Council shall make such tariff; but such fees shall not exceed the rates hereinafter mentioned, that is to say:—

1. For every survey and the certificate thereof by the Port Warden and his assistant, of the

hatches and cargo of any vessel, or of the hull, 3871
spars and rigging thereof, or the survey of damaged goods, a fee, including the certificate thereof, not exceeding eight dollars each, and such further sum, not exceeding five dollars, as may be payable to shipwrights or other skilled persons employed by him;

2. For every valuation of a vessel for average, and every inspection of a vessel intended to load, a fee to be graduated according to the tonnage of such vessel, but not in any case to exceed ten dollars;

3. For hearing and settling disputes of which 3872
the Port Warden is authorized to take cognizance, and for the fees on appeal to the council of the board of trade or chamber of commerce, a sum to be graduated according to the value of the thing or the amount in dispute, but in no case to exceed twenty dollars:

4. The foregoing maximum rates, comprehending the fees for the incidental proceedings, certificates and copies, may be altered and apportioned, and the particular service distinguished, and the fee therefor assigned, and the person by whom the same shall be paid, may be indicated in such 3873
a way as the council of the board of trade or chamber of commerce, may from time to time appoint; and all rates and so established shall be subject to the approval of the Governor in Council, who shall have power from time to time to disallow or modify and alter such fees and rates.

26. The penalty for any and every infraction or breach of the ninth or of the eleventh section

of this Act, shall be the sum of eight hundred dollars; and for every infraction or breach of the thirteenth section of this Act, the sum of twenty dollars; and any and every such penalty as aforesaid shall be recoverable in the manner prescribed by the "*Interpretation Act*," in the case where penalties are imposed, and the recovery is not otherwise provided for; and the whole of any pecuniary penalty imposed by this Act shall belong to the Crown, and shall be paid over to the Receiver General, by the officer or person receiving it, and shall be appropriated in such manner as the Governor in Council may direct.

27. The Port Warden shall have such other and further duties as may be assigned to him from time to time by any regulations made by order of Governor in Council; and the council of the board of trade or chamber of commerce may, from time to time, make such suggestions to the Governor as they may deem expedient, with respect to any such other and further duties, or any modifications of the duties hereinbefore assigned to the Port Warden for the harbour; and such other or further duties may be assigned or such modifications made, by Order in Council accordingly, and such Order in Council may be amended or repealed, and new provision made, and any regulations so made shall, while unrepealed, have the force of law, as if contained in this Act.

28. No officer of Customs shall grant a clearance to any vessel wholly or partly loaded with grain, for the purpose of enabling her to leave the harbour for any port not within the limits

of inland navigation nor within the Dominion of Canada, unless, nor until the master of such vessel produces to him a certificate from the Port Warden or his deputy, to the effect that all the requirements of this Act have been fully complied with, if such grain be laden in bulk; nor unless, or until such master produces to him a certificate from the Port Warden or his deputy, that all the requirements of this Act have been full complied with, if such vessel be wholly or partly laden with grain, otherwise than wholly or partly in bulk; and if any vessel wholly or partly loaded with grain attempts to leave the harbour for any port not within the limits of inland navigation nor within the Dominion of Canada, without a clearance, any officer of Customs, or any person acting under the direction of the Minister of Marine and Fisheries, or the chief officer of the River Police, may detain such vessel until such certificate is produced to him. 3877 3878

29. The expression "the harbour" in this Act, means the harbour for which the Port Warden is appointed; the expression "the board of trade or chamber of commerce" means the board of trade or chamber of commerce for the city or town or place adjoining the harbour for which the Port Warden is appointed. 3879

30. This Act may be cited as *"The General Port Wardens' Act*, 1874."

Claimant's Exhibit W.

3880

SCALE OF FEES.

First survey of hatches, and certificate....	$ 2.50
Every subsequent survey of cargo, and certificate	2.00
Survey of cargo when hatches have not been previously surveyed, and certificate	5.00
Every survey of damaged goods on wharf or in store, value under $200, and certificate	3.00
3881 Every survey of damaged goods on wharf or in store, value $200 and under $500, and certificate	4.00
Every survey of damaged goods on wharf or in store, value $500 and over, and certificate	5.00
Survey of vessel damaged or arriving in distress, and certificate	8.00
Every subsequent survey, and certificate..	5.00
Valuation of a vessel for average—under 200 tons, and certificate	5.00
Valuation of a vessel for average—over 200 tons and under 500 tons, and certificate	7.50
Valuation of a vessel for average 500 tons	
3882 and upwards, and certificate	10.00
Survey of cargo reported to have shifted, and certificate	5.00
All extra copies of certificates when required	.50
For certificate under seal	1.00
Hearing and settling disputes between master and consignee of ship, and owners of cargo, $200 value, $2.00; $200 to $500, $3.00; $500 to $1000, $4.00; $1000 and over, $5.00	

Claimant's Exhibit W.

Filing papers of auctioneers &c.	.25	3883
Ascertaining if vessel is seaworthy, and certificate	8.00	
Survey that repairs ordered if not seaworthy have been made, and certificate, 200 tons and under, $3.00; all over 200 tons $5.00		
General superintendence of a Vessel loading	5.00	
Vessels putting in in distress or otherwise, from Foreign Ports for every 1000 bushels and every proportionate quantity of Wheat and Peas 15 cts. For every 1000 bushels and every proportionate quantity of Barley 12 cts. For every 1000 bushels and every proportionate quantity of Oats 10 cts. For every 1000 bushels and every proportionate quantity of Corn 10 cts. For every 1000 Bbls. Flour 75 cts. Coal Oil per Bbl. ½ ct. Ores and Minerals per ton, Ballast excepted, 4 cts.....		3884
Lumber and all other descriptions of Timber per ton weight	.02	

3885

Claimant's Exhibit X.

3886 PORT WARDEN'S OFFICE

Halifax, N. S., July 27th, 1920.

I, the undersigned, having been requested by Messrs. Pickford & Black, Limited, Agents, to hold survey on the S. S. "WILLDOMINO" of Halifax, 5755 tons gross register, from Lisbon, via Sydney, C. B., bound to New York, and ascertain damage reported to have been caused by stranding at White Rock near Canso, on the 24th day of July.

3887 "For further particulars see Log Book and Protest, and Survey Report of Submarine Diver".

DO HEREBY REPORT that I this day proceeded alongside and on board the above named vessel lying at anchor in Halifax Harbor and upon examination found the fore peak full of water and upon sounding found 18 feet of water in No. 1 hold. All other holds and bilges dry. Draft of water at this time being—Forward 19.6, Aft 13.6. The after ballast tanks and peak tank being filled with water.

3388 I THEREFORE RECOMMEND that a submarine diver be engaged to make an examination of the damage.

On report of the Submarine Diver regarding the damage to the bottom, and taking into consideration the perishable nature of the cargo, and no dock being available at this Port for the purpose of docking the vessel, and after consulting with all parties interested,

Claimant's Exhibit X.

I RECOMMEND that the vessel be moved into the Wharf and that all cases of Lemons and Sardines in the No. 1 hold and tween decks be discharged and reloaded into No. 5 hold, and that sufficient cargo be taken out of the fore end of No. 2 hold to allow of the bulkhead between No. 1 and 2 hold to be properly braced and secured, and that the cargo of Lemons from No. 2 hold be restowed in No. 4 and 5 holds and bridge space. 3889

I FURTHER RECOMMEND that about 400 tons of Sand be placed on the after deck in order to raise the bow out of water as far as possible, and a 10″ pump be placed and fitted in fore end of No. 2 hold in case of any accident to the bulkhead. 3890

August 2nd, 1920.

The cargo having been removed and restowed as recommended, I found in the No. 2 hold at bulkhead a number of cases of Lemons more or less damp and wet—(caused by sweat of the bulkhead due to the water in No. 1 hold).—and RECOMMEND that the said cases of Lemons be carried forward to New York and there examined for damage. 3891

The bracing of the bulkhead having been completed and pump fitted in the No. 2 hold, and the sand placed on the after deck (Vessel's draft being—Forward 12′10″, Aft 22′6″)—

I DO CERTIFY that in my opinion the S. S. "WILLDOMINO" of Halifax is in a fit and seaworthy condition to proceed to New York and on discharge of cargo to be dry docked for further examination and repairs.

Claimant's Exhibit Y.

3892 I FURTHER RECOMMEND that the vessel be accompanied by an ocean going Tow Boat from this Port to New York.

Given under my hand and Seal at Halifax, this Second day of August, A. D. 1920.

(Sgd.) NEIL HALL,
Port Warden.

(Seal)

Claimant's Exhibit Y.

3893

SALVAGE ASSOCIATION, LONDON

Halifax Office
Pickford & Black's Wharf,

Halifax,
Nova Scotia

Telephone Sackville 1826

REPORT OF SURVEY S. S. "WILLDOMINO"
G. T. R. 5755. of Halifax, N. S.

3894

This is to Certify that the undersigned Surveyor at this port did at the request of Henry Black, Esq., New York, and on behalf of Underwriters concerned make Survey of S. S. "WILLDOMINO" G. T. R. 5755 of Halifax, N. S., then at anchor in stream at Halifax, N. S., on July 27th, 1920 and subsequent dates in order determine nature and extent damage alleged caused by striking on Gannett Rock vicinity White Island on or about July 24th, 1920 and whilst on a

voyage from Lisbon, via Sydney, N. S., for bunkers to New York loaded General Cargo; about 2-3 of which consists bale cork. 3895

It seems that vessel had been into Sydney and that due shortage of coal there, she could only get sufficient to bring her to Halifax and it was whilst making for Halifax that the disaster referred to above occurred.

Govt. S. S. "Lady Laurier" convoyed "WILLDOMINO" to Halifax, N. S.

For fuller particulars see copies attached and numbered as follows:—

(1) Protest 3896

(2) Log Extracts

(3) Copy of Divers Report

(4) Blue Print showing position of damage

UPON

EXAMINATION

Found Vessel drawing 19'6" forward and 13'6" aft; fore peak full No. 1 hold (loaded bale cork) full of water to sea level, No. 2 hold and all other compartments O. K. After ballast tanks including After Peak had been filled. Diver was sent down and reported (condensed). 3897

> "Stem bar broken at about 5 ft. mark, and shoved back together with plating and floors to two floor spaces abaft collision bulkhead, not practicable to patch or plug from outside."

A local Salvage Company were then asked how long they would take to seal No. 1 lower hold

Claimant's Exhibit Y.

3898 up, and their reply was ten days; this due no doubt local scarcity heavy timber.

A joint conference was then held amongst representatives of the various interests including Capt. Gillboy for Owners and following course jointly decided upon, principally with view save time:—

Discharge sufficient cargo out of No. 2 hold to permit ample shoring up of the bulkhead, cargo as removed to be put down after hold or where space permits.

No. 1 hold remove bulk of cargo from tween
3899 decks and put it down aft holds.

Sufficient sand ballast to be obtained ready place on after deck as may be necessary to trim vessel to a draft of or about 14 ft. forward to that of total immersion of propellor aft or about 20 ft. aft.

Bulkhead between Nos. 1 & 2 holds (notwithstanding its being good and well proportioned as bulkheads go) must be thoroughly well shored, braced and secured by heavy timbers, in addition to this a wrecking pump to be fitted after side of this bulkhead to take care of minor leaks
3900 should any develop on run to New York; disturbed cargo to be temmed off and safe against rolling.

A tug should also accompany vessel to New York more especially as some defect is reported in connection with Main Machinery (turbines). A coastal Pilot to go with vessel from Halifax, N. S. to New York.

Steamer will take necessary bunker coal here.

Claimant's Exhibit Y.

In order expedite shoring up of Bulkhead ar- 3901
rangements be made have Maritime Wrecking Co's "Maggie Marshall" deliver all heavy timber to ship and stand by at intervals as may be necessary for use their air tools and machines.

With aforegoing temporary repairs now completed in order renders vessel SEAWORTHY to proceed New York.

This Report and Certificate without prejudice and subject to the Policy Terms.

Halifax, N. S., August 2/20.

P. W. WILSON, 3902
Surveyor to Salvage Association, London.

NOTE OF PROTEST

HALIFAX
COUNTY OF HALIFAX
PROVINCE OF NOVA SCOTIA
TO WIT:

On this 28th day of July A. D. 1920 personally appeared before me John Strachan, Notary Public, JAMES BEELEY Master of the Steamer 3903
called the "WILLDOMINO" of Halifax, N. S. of the burden of 4173 net tons register or thereabouts, who requests me to make and enter protest for the following casualty;

The said steamer sailed from the Port of Lisbon, Portugal with a cargo of Fruit and General bound to the Port of New York U. S. A., on the 24th day of June. During voyage ship ran short of coal and had to put into Sydney C. B. for

Claimant's Exhibit Y.

bunkers. Leaving Sydney on July 23rd and during a dense fog on July 24th at 6.30 a. m. ship struck a submerged rock, position doubtful, ship's headway was stopped. 6.45 a. m. engines going astern ship cleared rock. On sounding holds found water in forepeak and No. 1 Hold and fearing damage to ship and cargo. Whereof the said Master has come before me and entered this Protest against the Owners, Underwriters and all concerned in vessel and cargo for all losses, damage and expenses that may happen or occur to the said vessel and or her cargo, or have happened or occurred to said vessel or cargo by and for reason of the aforesaid accident, reserving right to extend the same at time and place convenient.

(Sgd.) JAMES BEELEY Master

Taken before me at Halifax, N. S., this 29th day of July A. D. one thousand nine hundred and twenty

(Sgd.) JOHN STRACHAN
Notary Public
In and for the Province of Nova Scotia

Claimant's Exhibit Y.

EXTRACT OF LOG S. S. "WILLDOMINO" 3907
At. Anchor Sydney C. B.,
Friday July 23, 1920.

Fine clear day light S W wind.

At 12.45 p. m. pilot boarded standing by engine heaving anchor.

At 1 p. m. full ahead.

At 1.50 p. m. stopped discharged, pilot full ahead

At 2.25 p. m. Flat Point abeam distance ¾ mile, set course S 47E and streamed log.

At 3.42 p. m. altered course S 34 E smooth sea, clear and cloudy. 3908

At 4.30 p. m. Flint Island abeam, W x N ¾ mile log 16.

At 5.45 p. m. Scatterie Light House abeam west distance 4 miles Log 26 Altered course S 57W.

At 6.15 p. m. altered course S 72W log 30 Fresh breeze moderate sea and hazy overcast altered course S 70 W.

At 8.15 p. m. dense fog and heavy mists Louisburg fog signals heard.

At 8.15 p. m. altered course, S 65 W log 43.

At 8.30 p. m. log 45, and from 8.30 p. m. to 9 p. m. stood South.

At 9 p. m. altered course S 65W log 49. 3909

Saturday July 24th, 1920.

Engine room telegraph indicating stand by Dense fog whole of watch, and a BIT regulation complied with, a smooth sea. Engines going at reduced speed.

At 4.30 a. m. cast of lead 91 fathoms H & G log 93, altered course S 87W.

At 6.30 a. m. in dense fog, engines eased, steamer suddenly struck submerged object. Put engines astern and backed off and sounded ship. Found fore peak filling and No. 1 hold 18′ star-

3910 board and 21′ port. Took cast of lead and found 10 fathoms of water.

Courses various, kept engines going at reduced speed. Moderate wind and sea, dense fog, and B/T regulation attended to.

At 10.30 a. m. a cast indicated 36 fathoms an hour.

At 10.40 a. m. came to anchor, moderate wind and sea, densely foggy.

At 2.15 p. m. hove up anchor and stow ahead.

At 2.25 p. m. full ahead.

At 2.45 p. m. streamed log dense fog and rain.

3911 B/T regulations complied with rough sea.

At 5 p. m. cast of lead 50 fathoms stones and rocks Log 3.

At 5.20 p. m. stopped and drifted ship would not steer.

At 6 p. m. came to anchor in 32 fathoms and 6 shackles, starboard anchor. Fresh breeze and moderate sea, and clear. No. 1 hold soundings remained the same as 7 a. m.

At 8 p. m. strong S W wind, long breaking sea and hazy atmosphere riding on starboard anchor 90 fathoms—in 32 fathoms of water position by D R S 30E 7 miles distance from

3912 Gannett's Point.

At 9 p. m. Cranberry Island Light bore N 14 E.

At 9.45 p. m. thick fog and rain. Soundings in No. 1 hold remained at a constant range during the watch. S 18 and P 20 S W wind and sea and fog continued, at cast indicated 36 fathoms and rocks.

Sunday July 25th, 1920.

Tanks and bilges sounded by officer of watch, every hour and found to be not making any more water.

Claimant's Exhibit Y.

At 3.15 a. m. took cast of lead 36 fathoms heavy S W sea dense fog, and B/T regulations complied with. 3913

At 7.10 a. m. steamer swung S x E, tanks and bilges sounded every hour and show slight decrease of water. Engines pumping out same.

At 8 a. m. wind and sea increasing and foggy weather and B/T regulations attended to, and ship at anchor.

At 8 a. m. riding on the starboard anchor, 90 fthms of chain and 35 ft. of water, in position by D R S 30E true 7 miles from Gannett Point (Andrews Island).

At 10.15 a. m. heaving anchor. 3914

At 10.45 a. m. under way.

At 10.45 a. m. came to anchor for engine repairs Starboard anchor 90 fthms chain, in 33 fthms of water. In position approximately same as 8 a. m. Cranberry Island fog signals heard in N ½ W (true direction).

At 3.40 p. m. engines repaired but unable to go astern received radio tug leaving Halifax to our assistance tanks and bilges sounded and found to be remaining constant; banks of dense fog ad B/T regulations complied with; clear at times Heavy S W swell. 3915

At 6.30 p. m. fog lifted and sky clear.

At 8 p. m. heaving anchor.

At 8.15 p. m. under way, clear and heavy S W swell Strong breeze and heavy head sea, and clear weather. Set course S 75W.

At 8.30 p. m. departure taken with Cranberry Island Light bearing N 19E 10 miles Log 0 course checked to steer S 85W.

At 10.00 p. m. log 8 altered course S 87W checked to steer W ½N.

At 10.45 p. m. tanks and bilges sounded by officer on watch.

Claimant's Exhibit Y.

3916 Monday July 26th, 1920.

At 2.50 a. m. Country Island Light abeam distance 5½ miles, and N3½.

At 3.15 a. m. Country Island Light Buoy abeam, log 26½ distance 2 miles. Tanks and bilges sounded by officer of watch moderate sea and S W swell, fine with slight haze. Convoyed by Lady Laurier.

At 6.30 a. m. gas buoy off Liscomb abeam North ¼ west 1 miles Log 38.

At 7 a. m. Scotia steamed alongside.

At 7.30 a. m. spoke to Scotia we did not re-
3917 quire assistance moderate wind and hazy and heavy swell. Following Convoy Lady Laurier, tanks and bilges sounded during the watch.

At 11.05 a. m. anchored in 15 fthms of water, with Heaver Island Light bearing south and Lockwood Buoy bearing East.

At 1.30 p. m. the steamship Lady Laurier moved into position to make fast tow line.

At 2.15 p. m. tow lines all fast, commenced to heave up anchor.

At 2.30 p. m. starboard tow line caught on bottom of sea and parted.

3918 At 3.15 p. m full ahead; vessel in tow of Lady Laurier, but assisting with own engine.

At 8.07 p. m. Sheet Rock Buoy abeam N 6 W and Beaver Island N 57E, moderate wind and sea and fine clear weather. Courses various, vessel in tow.

At 8 p. m. Egg Island Light, and Egg Island Buoy in transit, bearing by Standard compass North. Steamed log reading 0.

At 10.45 p. m. Sambro Light bore West, Chebucto Head bore North 75 West. Sambro Light vessel bire S 80W, soundings in holds remained constant. Fine clear weather and smooth sea.

Claimant's Exhibit Y.

Tuesday July 27th, 1920. 3919

Courses various.

At 0.15 a. m. stopped for Pilot.

At 0.30 a. m. Pilot boarded and proceeded at various speeds up Harbor, in tow of steamship Lady Laurier, and our own engines.

At 1.50 a. m. stopped engines.

At 2.12 a. m. anchored Starboard anchor 45 fthms cable and rung off engine.

At 2.40 a. m. Hawser hove in (3.40 a. m. Standard time).

(Sgd.) JAMES BEELEY, Master.

3920

EXTRACT FROM CHIEF ENGINEER'S LOG BOOK S. S. "WILLDOMINO"

Saturday July 24th, 1920.

At 6.30 a. m. engine room time ship struck some rock or submerged object forward. Engine instantly put full astern 6.30 Stop 6.37. Full astern 6.42 Stop 6.44 Half ahead 6.45 Stop 7.7 Slow ahead 7.10 stop 8.51 slow 9.10 stop 9.39 anchored. All forward tanks except No. 1 being pumped out and After Peaks filled up. 3921
No. 1 tank and Fore Peak full of water.

(Sgd.) R. G. DONALDSON
Chief Engineer

DIVER'S REPORT

At the request of Mr. George W. Hensley, Lloyd's Agent at Halifax, we have made a diver's examination of the under water damage to the

3922 bow of the S. S. "WILLDOMINO" whilst at anchor in Halifax Harbor and beg to submit the following report:—

The forefoot is carried away between the four and five feet marks, the stem piece being broken in two, the lower piece about four feet being forced up into the ship's bottom together with the plating and frames as far aft as second frame.

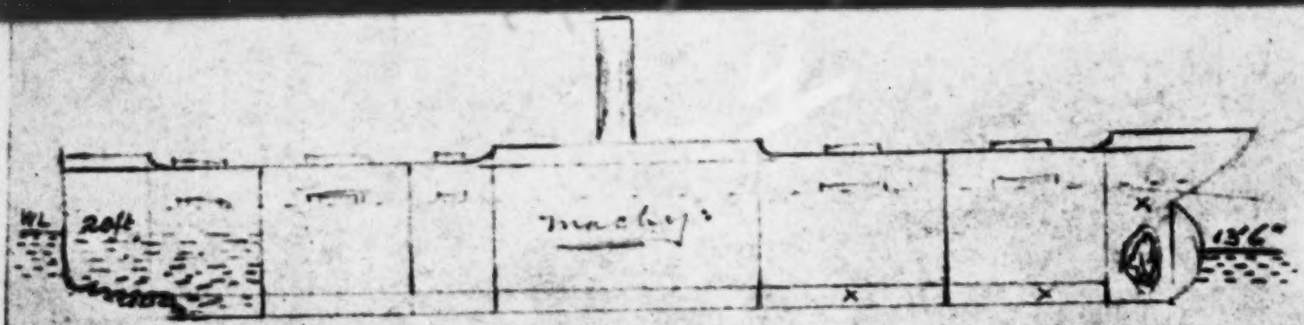
On the starboard side from second frame aft, the keel plate and two plates above are torn back and corrugated as far aft as collision bulkhead leaving an open hole into forepeak—all
3923 frames are bent, some broken and torn away from fastenings as far aft as collision bulkhead.

On port side from second frame, keel plate and two plates above are torn from fastenings and crumpled back against collision bulkhead, this being forced back also damage extending to second frame aft.

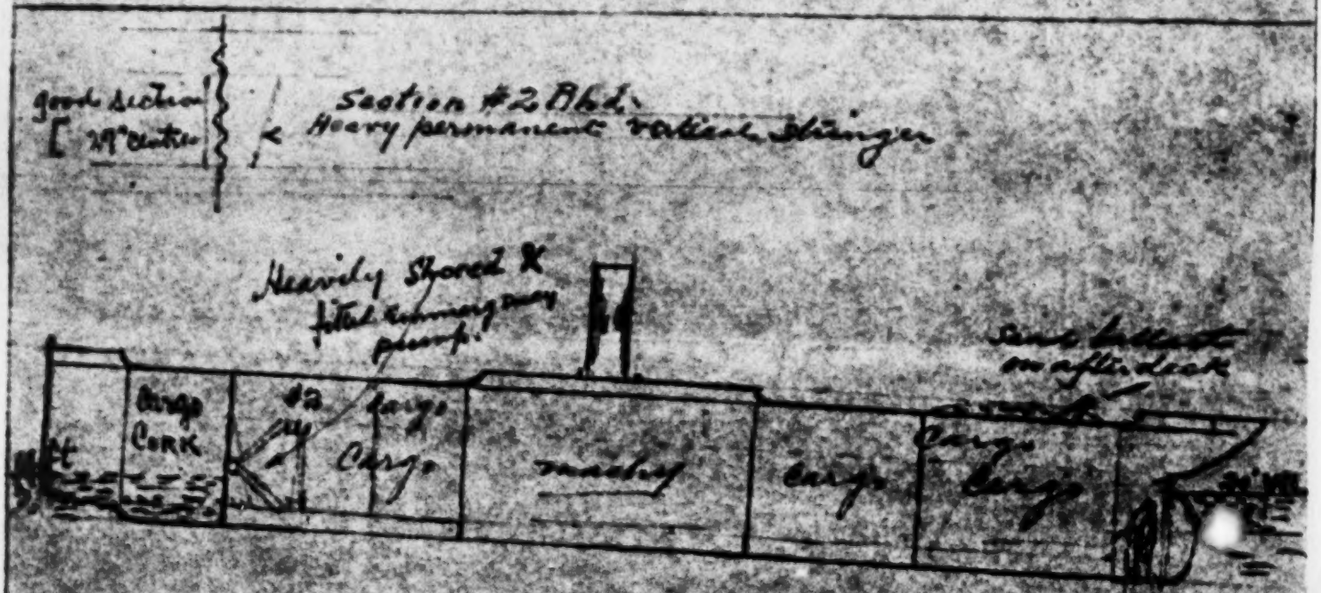
All transverse "V" sections in ship's bottom are also torn from fastenings, turned up and pushed back.

From second frame ship's bottom entirely open, plating, frames and "V" sections all being crowded aft against collision bulkhead bending
3924 same. Damage commences between four and five foot marks is apparently above level of tank tops but this cannot be definitely ascertained until cargo in No. 1 hold is discharged.

THE MARITIME WRECKING & SALVAGE CO., LTD.
Halifax, N. S.
July 27th, 1920.



— S.S. "WILLDOMINO" — arriving Hfx: July 27/20
x (All after ballast in)



in Trim for leaving Hfx for Hdg.

S/S Willdomino

Forefoot gone, + plating doubled back two floor spaces abaft C/Bd. Patching C/S impracticable, + sealing up No I deferred special request Owners. Part cargo fruit, bulk of cargo bale cork

Hfx July 29/20:

VWW

CLAIMANTS EXHIBIT Y

Part of Claimant's Exhibit Y.

3925

(DIAGRAM)

3926

3927

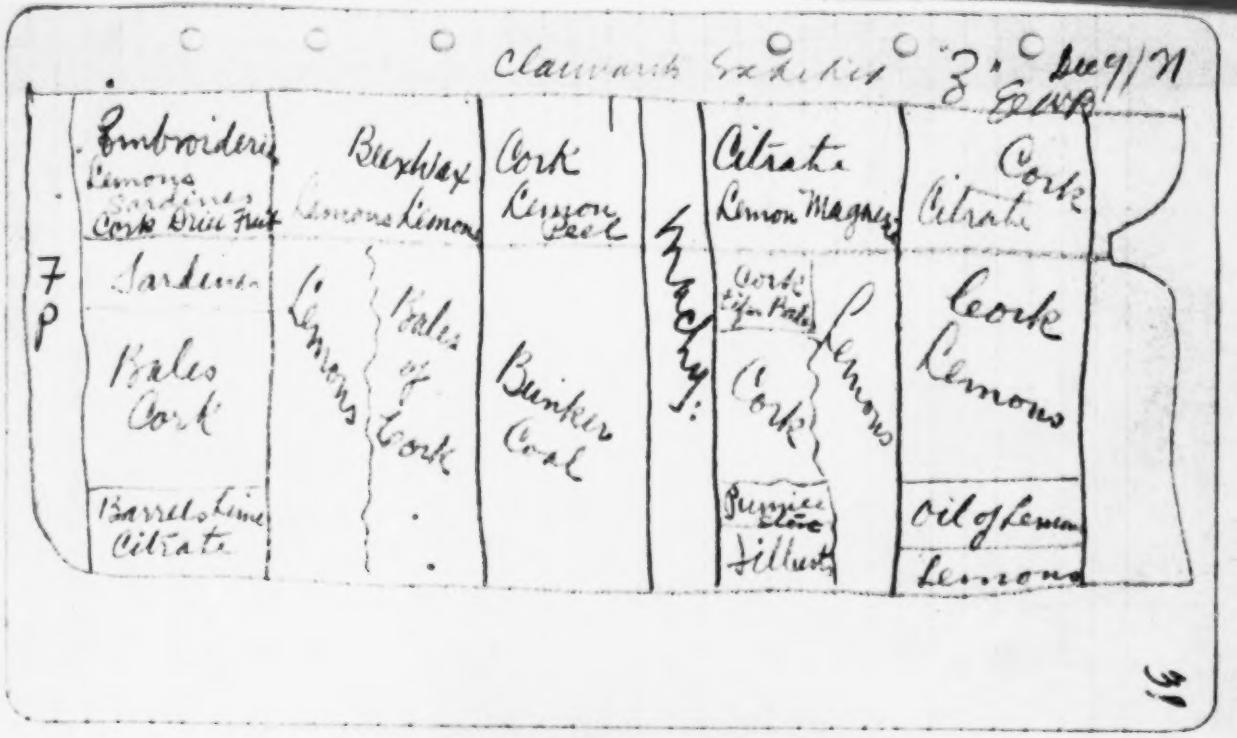
Claimant's Exhibit Z.

3928

(DIAGRAM)

3929

3930



CLAIMANTS
EXHIBIT- Z.

Claimant's Exhibit AA-1.

3931

(PHOTOSTAT)

3932

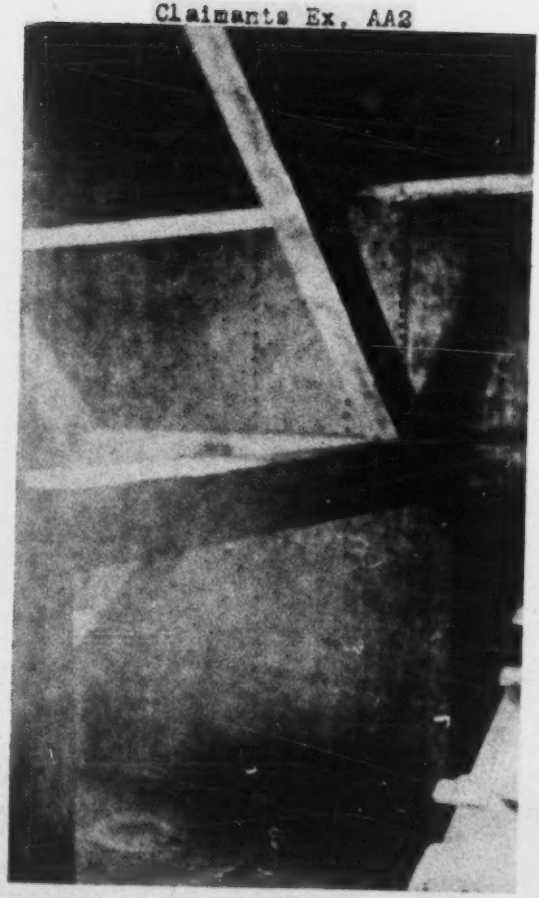
3933

Claimant's Exhibit AA-2.

3934

(PHOTOSTAT)

3935



3936

Libellants Ex. 1

FRATELLI BONANNO

(ESTABLISHED 1848)

STEAM SHIP AGENTS & BROKERS.

COAL IMPORTERS.

MESSINA

Agencies at all Sicilian Places.

Telegrams: "BONANNO"

C A
P
4964/5401
Ford. Baller & C.
MESSINA

Said to be marked as per margin
It is specially stipulated that no claim is to be made by the shipper or receiver for any loss arising from difference in marks numbers or contents

60/- p/ FREIGHT
100 Kg

L. 684. 2. 1

Primage
FREIGHT TO BE PAID L. 684. 2. 1
Charges
Premium
Total. L.

SHIPPED by, or received for shipment, in apparent good order and condition from Ford. Baller & C
to be transported by the good Steamship Wiskamino Captain
to NEW YORK with liberty to call at Intermediate Ports or any port or ports in or out of the customary route in any order, to receive and discharge coal, cargo, passengers, and for any other purposes, and if failing shipment by her, then the goods to be shipped by the following steamship or any other of the same line.

L - 1

(335) Three hundred & thirty five Casks Citrati of Lime Kgs 6258035

said to be marked and numbered as above, weight, measure, quality, contents and value although mentioned in the Bill of Lading, to be considered as unknown to the Master, unless expressly recognised and agreed to the contrary, and to be delivered in like good order and condition, within the jurisdiction of the Custom-House of the aforesaid port of NEW YORK

unto Messrs Chas. Pfizer & Co Inc

or to his or their assign, freight on the goods and charges as per margin NEW-YORK ship lost or not lost

General Average payable according to York and Antwerp Rules 1890.

IT IS MUTUALLY AGREED AS FOLLOWS: FIRST, The Ship and Carrier shall not be liable for loss or damage occasioned by the perils of the seas or other waters, by fire from any cause or wheresoever occurring, by barratry of the Master or crew, by enemies, pirates, robbers or thieves, by arrest and restraint of Princes, rulers or people, by explosion, bursting of boilers, of breakage of shafts, or any latent defect in hull, machinery or appurtenances, or **Unseaworthiness of the ship even existing at time of shipment or sailing on the voyage, provided the owners, have exercised due diligence to make the vessel seaworthy,** by collision, stranding, or other accidents of navigation of whatsoever kind, even when occasioned by the negligence, default or error in judgment of the pilot master, mariners, or other servants of the shipowner, nor for any loss or damage caused by heat, decay, putrefaction, vermin, rust, sweat, change of character, shrinkage, leakage, breakage nor for any loss or damage arising from the nature of the goods or the insufficiency of the packages, nor for any country damages; nor for the obliteration, errors, inefficiency or absence of marks or numbers, address or description; nor for risk of craft, hulk and transshipment, nor for any loss or damage caused by the prolongation of the voyage, nor for any loss or damage occasioned by **neglect, default or error in navigation of the master and crew in the navigation or management of the ship will not liberate the consignees from contributing their proportion in General Average.**

SECOND: The ship shall have liberty to sail without pilots; to tow and assist vessels in distress; to deviate for the purpose of saving life or property. That the Carrier shall have liberty to convey goods in lighters to and from the ship at the risk of the goods and in case the Ship shall put into a port of refuge or be prevented from any cause from proceeding in the ordinary course of her voyage, to transship the goods to their destination by another vessel.

THIRD: The value of package receipted for as above does not exceed the sum of One Hundred Dollars, unless otherwise stated herein, on which basis the rate of freight is adjusted. Neither Ship nor Carrier hall be liable for gold, silver, bullion, specie documents, jewelry, works of art, silks, furs, timepieces, porcelain, or other highly valuable articles, unless notice of true character, and value thereof is given and same is entered in the bill of lading.

FOURTH: Shippers shall be liable for any loss or damage to Ship or Cargo caused by inflammable, explosive or other dangerous goods, shipped without full disclosure of their nature whether such shipper shall have been aware of it or not, and whether such shipper be principal or agent; and such goods may be thrown overboard or destroyed at any time without compensation.

FIFTH: The Carrier shall have a lien on the goods for all fines or damages which the Ship or Cargo may incur or suffer by reason of the incorrect or insufficient marking of packages description of their weight or contents.

SIXTH: Goods once received for shipment cannot be taken away by the shipper except upon payment of the full freight, damages and expenses sustained by the Ship or Cargo through such taking away.

SEVENTH: In case Ship shall be prevented from reaching her destination by Quarantine, the Carrier may discharge the goods into any depot or lazaretto, and such a discharge shall be deemed a final delivery under this contract, and all the expenses thereby incurred on the goods shall be a lien thereon. **In case of blockade or interdict of the port of discharge or if without such blockade or interdict** the entering of or discharging in the port shall be considered by the master unsafe by reason of war or disturbance, or ice, or from any other cause, the master may land the goods at any other port which he may consider safe at the expense and risk of the owner of the goods. The master to have the right of accomplishing this bill of lading at any other port which he may consider safe.

EIGHTH: **The ship has liberty of filling up and or bunkering at any port or ports in or out of the way.**

NINTH: Full freight is due on damaged goods and on goods diminished by leakage, but no freight is due on any increase in bulk or weight caused by the absorption of water during the voyage.

TENTH: The carrier shall have a lien on all goods for payment of freight and charges, including dead freight, demurrage, forwarding, charges, charges for carriage to port of transhipment and the fines, damages and expenses mentioned in § 5 and § 7, and for General Average claims, and, if on sale of goods at destination for freight and charges the proceeds, less duty, fail to cover such freight and charges, the Carrier shall be entitled to recover such difference from the shipper.

ELEVENTH: In the event of claims for loss, damage or short delivery the same shall be adjusted on the basis of the invoice value of the entire shipment adding expenses necessarily incurred.

TWELFTH: Freight and charges to be paid immediately on the landing of the goods, without any allowance, credit or discount Sterling freight payable at short rate of Exchange on London quoted at noon on the day of the Ship's arrival, or, if a holiday, on the preceding day Prepaid Freight cannot be reclaimed, Ship or Goods lost or not lost.

THIRTEENTH: Goods to be taken from the Ship by the Consignees directly they come to and in discharging the Ship, and the Carrier's responsibility to cease, package by package, immediately the goods leave Ship's deck or tackle. If not taken from alongside by Consignees, they will be landed and deposited at the expense of the Consignee, and at his risk of fire, loss or injury on the dock, or in craft the Collector of the Port being hereby authorized to grant a general order for the discharge immediately after the entry of the ship.

FOURTEENTH: Parcels for different Consignees, collected and made up in single packages, addressed to one party for delivery in America, for the purpose of evading payment of parcel freight, will, upon examination by the Customs, be charged with the proper freight on each parcel.

AND FINALLY: In accepting this Bill of Lading, the Shipper, Owner and Consignee of goods agree to be bound by all its stipulations, exceptions, and conditions, whether written or printed, as fully as if they were all signed by such Shipper, Owner or Consignee.

IN WITNESS WHEREOF the Master or Agent of the said Ship has affirmed to Three Bill of Lading, all of this tenor and date, one of which being accomplished the other to stand void.

Filling up only in ports on the way Westward of Gibraltar

Dated in MESSINA the 10 day of June 1895

For the Master

Libellants Ex. 1
(Back)

Chas. Pfizer & Co., Inc.

Treasurer

Libellant's Exhibit 1.

3937

(PHOTOSTAT)

3938

3939

Libellant's Exhibit 2.

3940

FERD. BALLER & CO.
CATANIA

527 Catania, 10th of June 1920

Messrs CHAS. PFIZER & Co. INC.
New York

Invoice of 335 casks citrate of lime bought by you from the Camera Agrumaria and shipped by your order and for your account & risk per British S/S WILLDOMINO Captn ..... from Messina to New York unto your order.

3941

C. A.	335 casks citrate of lime		
P.	Gross kos. 228035		
4967/	Tare " 26324		
/5301	Nett kos. 201711		
Ferd. Baller & Co. Messina.	at L.850,—per 100 kos. basis 64% c. a.	Lit.	1714543,50
	Interests as per attache statement	"	215,—
	Shipping charges at 4.20 per kos. 305 nett	"	2777,65
	Statistical duty at 0.20 per % kos. gross	"	456,05
		Lit.	1717992,20
3942	our commission 1%	"	17179,90
		Lit	1735172,10
	consular fee	"	62,50
		Lit.	1735234,60

(Two canceled stamps) (Stamp—Entered fol. 173 C. H. E.)

Certified correct.
FERD. BALLER & CO.

Subject to settlement of acidity on receipt of certificate of analysis from the Camera Agrumaria.

Libellant's Exhibit 3.

3943

(Letterhead of Williams Steamship Co.)
44 Whitehall Street
New York City

October 5th, 1920.

Chas. Pfizer & Co., Inc.,
81 Maiden Lane,
New York City.

Gentlemen:

We beg to acknowledge receipt of your letter 3944
of October 4th, re 335 Casks of Citrate of Lime now on steamship "WILLDOMINO".

We disclaim any liability of any kind in connection with said Citrate of Lime, or in connection with any duty which you allege that you have paid.

We beg to advise you, however, that if you have paid duty, we understand and are advised that you have absolute right to recover same from the Government upon the abandonment of the merchandise which you claim you are doing.

Yours very truly, 3945

WILLIAMS STEAMSHIP COMPANY, INC.
H. ROBERT BURNEN.

HRB:JF

Libellant's Exhibit 4.

3946

(PHOTOSTAT)

3947

3948

Libellants Ex. 4

FRATELLI BONANNO

(ESTABLISHED 1848)

STEAM SHIP AGENTS & BROKERS,

COAL IMPORTERS.

MESSINA

Agencies at all Sicilian Places.

Telegrams: "BONANNO"

C A

C

5899/6066

Furd. Baller & C.

MESSINA

Said to be marked as per margin. It is specially stipulated that no claim is to be made by the shipper or receiver for any loss arising from difference in marks numbers or contents

FREIGHT

Got per 100 Kg

L. 342. 13. 2

Primage

FREIGHT TO BE PAID

L. 342. 13. 2.

Charges

Freshow

TOTAL L.

SHIPPED by, or receveid for shipment, in apparent good order and condition from Ferd. Baller & C

to be transported by the good Steamship Oklahoma Captain

to NEW YORK with liberty to call at Intermediate Ports or any port or ports in or out of the customary route in any order, to receive and discharge coal, cargo, passengers, and for any other purposes, and if failing shipment by her, then the goods to be shipped by the following steamship or any other of the same line.

L-4

(168) One hundred Sixty Eight Casks Asbestos Crude

said to be marked and numbered as above, weight, measure, quality, contents and value although mentioned in the bill of Lading, to be considered as unknown to the Master, unless expressly recognized and agreed to the contrary, and to be delivered in like good order and condition, within the jurisdiction of the Custom-House of the aforesaid port of NEW YORK

unto Messrs Goldman Sachs & Co.

or to his or their assign, freight on the goods and charges as per margin NEW-YORK ship lost or not lost

General Average payable according to York and Antwerp Rules 1890.

IT IS MUTUALLY AGREED AS FOLLOWS: FIRST: The ship and Carrier shall not be liable for loss or damage occasioned by the perils of the seas or other waters, by fire from any cause wheresoever occuring, by barratry of the Master or crew, by enemies, pirates, robbers or thieves, by arrest and restraint of princes, rulers or people, by explosion, bursting of boilers, of breakage of shafts or any latent defect in hull, machinery or appurtenances, or unseaworthiness of the ship even existing at time of shipment or sailing on the voyage, provided the owners, have exercised due diligence to make the vessel seaworthy, by collision, stranding, or other accidents of navigation of whatsoever kind, even when occasioned by the negligence, default or error in judgment of the pilot, master, mariners, or other servants of the shipowner, nor for any loss or damage caused by heat, decay, putrefaction, vermin, rust, sweat, leakage of steamer, shrinkage, leakage, breakage nor for any loss or damage arising from the nature of the goods or the insufficiency or defective condition of packages or insufficiency or illegibility of marks or numbers; address or description; nor for risk of craft, hulk and transhipment; nor for any loss or damage caused by the prolongation of the voyage; nor for any loss or damage occasioned by causes beyond his control, whether of master and crew in the navigation or management of the ship will not liberate the consignee from contributing their proportion to General Average.

SECOND: The ship shall have liberty to sail without pilots, to tow and assist vessels in distress; to deviate for the purpose of saving life or property. That the Carrier shall have liberty to carry goods in lighters to and from the ship at the risk of the goods and to enter any port of refuge or be prevented from any cause from proceeding in the ordinary course of her voyage, to transship the goods to their destination by another vessel.

THIRD: The value of package recognized for an above does not exceed the sum of One Hundred Dollars, unless otherwise stated herein, on which basis the rate of freight is adjusted, whether more or less shall be given and same is entered in the bill of lading. Carrier shall not be liable for gold, silver, bullion, specie, documents, jewelry, works of art, silks, furs, timepieces, porcelain, or other highly valuable articles, unless nature of true character and value thereof is

FOURTH: Shippers shall be liable for any loss or damage to Ship or Cargo caused by inflammable, explosive or other dangerous goods shipped without full disclosure of their nature, whether shipper shall have been aware of it or not, and whether such shipment be personal or agent; and such goods may be thrown overboard, destroyed or rendered harmless at any time without compensation.

FIFTH: The Carrier shall have a lien on the goods for all freight, damages and expenses sustained by the ship or Cargo through such illegal consignment, their weight or contents.

SIXTH: Goods once received for shipment cannot be taken away by the shipper except upon payment of the full freight, damages and expenses sustained by the ship or Cargo through such illegal consignment.

SEVENTH: In case Ship shall be prevented from reaching destination by Quarantine, the Carrier may discharge the goods into any depot or lazaretto, and such a discharge shall be deemed a final delivery under this contract, and all the expenses thereby incurred shall be a lien thereon. In case of Blockade or Rejection of the port of discharge or if the ship cannot discharge or receive the goods shall be a lien thereon. In case of Blockade or Rejection of the port of discharge or if the ship cannot discharge or receive the entering of or discharging in the port shall be considered a matter unsafe by reason of war or disturbance, or ice, or from any other cause, the master may land the goods at any other port which he may consider safe at the expense and risk of the owner of the goods. The master to have the right of accomplishing this bill of lading at any other port which he may consider safe.

EIGHTH: The ship has liberty of filling up and on business at any port or ports in or out of the way.

NINTH: Full freight is due on damaged goods and on goods lost by leakage, but no freight is due on any increase in shipping weight caused by the absorbtion of water during the voyage.

TENTH: The carrier shall have a lien on all goods for freight and charges, including dead freight, demurrage, forwarding, charges, charges for carriage to port of transhipment and the same, damages and expenses mentioned in s 5 and 7, and for General Average contributions, and if, on sale of goods at destination for freight and charges the proceeds, less duty, fail to cover such freight and charges, the Carrier shall be entitled to recover such difference from the consignee.

ELEVENTH: In the event of claims for loss, damage or short delivery the same shall be adjusted on the basis of the invoice value of the entire shipment adding expenses necessarily incurred.

TWELFTH: Freight and charges to be paid immediately on landing of the goods, without any allowance, credit or discount. Sterling freight payable at short rate of Exchange on London quoted at noon on the day of the Ship's arrival, or, if a holiday, on the following day. Prepaid Freight cannot be reclaimed. Ship or Goods lost or not lost.

THIRTEENTH: Goods to be taken from the Ship by the Consignee directly they come to and in discharging the Ship, and the Carrier's responsibility to cease, package by package, immediately the goods leave Ship's deck or tackle. If not taken from alongside by the Consignee, they will be landed and deposited at the expense of the Consignee, and at his risk of fire, loss or injury on the dock, or in such other Collector of the Port being hereby authorized to grant a general order for the discharge immediately after the entry at the ship.

FOURTEENTH: Parcels for different Consignees, collected at one landing, to be delivered in one lot to one party for the purpose of evading payment of proper freight, will be charged with the proper freight on examination by the Customs, to be charged with the proper freight on the whole quantity so delivered.

AND FINALLY: In accepting this Bill of Lading, the Shipper and Consignee of goods agree to be bound by all it's stipulations, exceptions and conditions, whether written or printed, as fully as if they were all signed by such shipper, Owner or Consignee.

IN WITNESS WHEREOF the Master or Agent of the said Ship has affirmed to Bills of Lading, all of this tenor, and date, one, of which being accomplished the others to stand void.

Filling up only in ports on the way Westwards of Shanghai

Dated in MESSINA the 10 day of June 1920

For the Master

Libellants Ex. 4
(Back)

DELIVER TO

Goldman Sachs & Co.

COLEMAN SACHS & CO.

Libellant's Exhibit 5.

(Two canceled stamps) 3949

FERD. BALLER & CO.
CATANIA

526 Catania, 10th of June 1920

Messrs CITRO CHEMICAL COMPANY OF AMERICA,
Maywood, N. J.

Invoice of 168 casks citrate of lime bought by you from the Camera Agrumaria and shipped by your order and for your account & risk per British S/S WILLDOMINO Captn ..... from Messina to New York 3950
unto Messrs Goldman, Sachs & Co.

C. A.	168 casks citrate of lime		
C. 5899/6066	Gross kos. 114220		
	Tare 13127		
	Nett kos. 101093		
Ferd. Baller & Co. Messina.	at L.850,—% kos. basis 64% c. a.	Lit.	859290,50
	Interest at 7,50% for 13 days (from June 3 to June 16)	"	2327,15
	Shipping charges at L.4,20 per 305 kos. nett	"	1392,10
	Statistical duty at 0,20 per 100 kos. gross	"	228,45 3951
	Italian Bill stamp	"	435,95
		Lit.	863674,15
	at 17,25 sight	S.	50068,05
	Our commission 1%	"	500,70
	Consular Fee	"	2,50
		S.	50571,25

Subject to settlement of acidity on receipt of certificate of analysis from the Camera Agrumaria.

Certified Correct
FERD. BALLER & CO.

Libellant's Exhibit 5.

3952 s/s. WILLDOMINO — Catania, June 1920

from Messina to New York

N.	Tara KILO	Brutto KILO	N.	Tara KILO	Brutto KILO	N.	Tara KILO	Brutto KILO
5899	77	647	5929	78	664			
5900	82	629	30	78	695			
1	77	649	1	78	752	Recapitulation		
2	77	668	2	78	638			
3	78	655	3	80	694			
4	78	662	4	78	654		786	6548
5	78	671	5	78	673		766	6719
6	82	666	6	78	650		788	6768
7	78	634	7	86	646		788	6723
8	79	667	8	76	657		239	1983
3953	786	6548		788	6723		3367	28741
								3367
5909	79	672	5939	84	657			
10	74	619	40	77	628		nett kos.	25374
1	79	651	1	78	698			
				239	1983			
2	72	688						
3	77	645				C. A.		
4	84	685				C.		
5	76	707				5899/5941		
6	75	694						
7	73	658				43 casks citrate of lime.		
8	77	700						
	766	6719						
3954								
5919	79	654						
20	79	704						
1	79	662						
2	78	637						
3	83	701						
4	78	688						
5	78	704						
6	78	704						
7	80	671						
8	76	643						
	788	6768						

Libellant's Exhibit 5.

s.s. WILLDOMINO — Catania, Juna 1920 — 3955

from Messina to New York

N.	Tara KILO	Brutto KILO
5942	76	708
3	81	686
4	65	674
5	76	650
6	68	667
7	65	669
8	91	706
9	84	697
50	83	728
1	86	714
	775	6899
5952	72	710
3	77	716
4	80	695
5	66	639
6	73	730
7	81	701
8	66	597
9	79	720
60	73	667
1	69	665
	736	6840
5962	88	709
3	70	644
4	87	700
5	77	676
6	94	669
7	75	690
8	82	693
9	86	723
70	86	687
1	83	704
	828	6895

N.	Tara KILO	Brutto KILO
5972	68	664
3	77	660
4	77	651
5	76	737
6	76	726
7	78	669
8	78	646
9	81	666
80	75	725
1	74	712
	760	6856
5982	77	752

N.	Tara KILO	Brutto KILO
Recapitulation		
	775	6899
	736	6840
	828	6895
	700	6856
	77	752
	3176	28242
		3176
		3956
	nett kos.	25066

C. A.
C.
5942/5982

41 casks citrate of lime.

3957

Libellant's Exhibit 5.

3958 s/s. WILLDOMINO — Catania, June 1920

from Messina to New York

N.	Tara KILO	Brutto KILO	N.	Tara KILO	Brutto KILO
5983	86	719	6013	80	708
4	79	746	4	67	637
5	74	701	5	76	639
6	80	749	6	69	658
7	81	695	7	68	638
8	84	678	8	67	634
9	81	723	9	63	630
90	85	675	20	68	647
1	81	711	1	74	650
2	78	699	2	68	661
	809	7096		700	6502
5993	77	656			
4	85	664	6023	83	659
5	86	750	4	78	646
6	84	646		161	1305
7	82	739			
8	80	628			
9	77	666			
6000	69	669			
1	84	649			
2	78	725			
	802	6772			
6003	79	706			
4	80	737			
5	79	606			
6	86	722			
7	83	668			
8	79	670			
9	78	660			
10	64	629			
1	79	634			
2	72	613			
	779	6645			

3959

3960

Recapitulation

N.	Tara KILO	Brutto KILO
	809	7096
	802	6772
	779	6645
	700	6502
	161	1305
	3251	28320
		3251

nett kos. 25069

C. A.
C.

5983/6024

42 casks citrate of lime.

Libellant's Exhibit 5.

S/S. WILLDOMINO — Catania, June 1920 — 3961

from Messina to New York

N.	Tara KILO	Brutto KILO
6025	79	663
6	89	738
7	76	644
8	76	545
9	70	656
30	78	674
1	83	622
2	82	701
3	72	607
4	78	734
	783	6584
6035	74	601
6	79	730
7	85	719
8	82	710
9	92	727
40	83	666
1	71	700
2	78	621
3	85	720
4	93	713
	822	6907
6045	84	674
6	93	704
7	87	702
8	80	725
9	91	684
50	86	712
1	84	732
2	82	704
3	84	753
4	70	721
	841	7111

N.	Tara KILO	Brutto KILO
6055	71	692
6	71	710
7	72	624
8	70	698
9	92	735
60	71	729
1	69	732
2	71	679
3	70	720
4	82	645
	739	6964
6065	72	665
6	76	686
	148	1351

N.	Tara KILO	Brutto KILO

Recapitulation.

	783	6584
	822	6907
	841	7111
	739	6964
	148	1351
	3333	28917

3962

3333

nett kos. 25584

C. A.
C.

42 casks citrate of lime.

6025/6066

3963

Libellant's Exhibit 6.

3964

This was attached to Invoice put in this folder.

"Wilshipco" New York NEW YORK

Aug. 14, 1920.

Citro Chemical Co.,
Maywood, N. J.

To WILLIAMS STEAMSHIP COMPANY, DR.
Incorporated
Ship Agents and Brokers
44 Whitehall Street

3965

Telephones Bowling Green—7394, 7395, 7396

Codes:
Western Union
5 Letter Edition
Scott's 10th Edition

To ocean transportation 168 Casks Citrate of Lime, per S. S. "WILLDOMINO" from Messina, B/L dated June 10th, 1920. $1350.93

RECEIVED PAYMENT

3966

WILLIAMS STEAMSHIP COMPANY, INC.
By J. S. RAUCH.

Libellant's Exhibit 7.

3967

(Letterhead of Williams Steamship Co.)

44 Whitehall Street
New York City

August 16th, 1920.

Delivery Clerk,
S/S "Willdomino"
Pier C, Jersey City.

Dear Sir:—

3968

Please deliver to Citro Chemical Company, Mapwood, N. J. or their order, 168 Casks Citrate of Lime, marked

C A
C
5899/6066
Ford, Baller & C.
MESSINA.

Bill of lading dated Messina June 10th, 1920 S/S "Willdomino".

Kindly secure receipt upon delivery of merchandise.

3969

Very truly,

WILLIAMS STEAMSHIP COMPANY, INC.
J. S. RAUCH.

JSR.

Libellant's Exhibit 8.

3970

(Letterhead of Williams Steamship Co.)

44 Whitehall Street
New York City

October 2nd, 1920.

Citro Chemical Co.,
Maywood, N. J.

Gentlemen:

3971 You will please take notice that 168 casks of Citrate of Lime, which arrived on the steamship "WILLDOMINO" from Messina, consigned to Messrs. Goldman, Sacks & Co., and said to be the property of Citro-Chemical Company of Maywood, N. J., is now on board the said steamship at Tietjen & Lang's Dry Dock, 17th Street and Park Avenue, Hoboken, N. J. and that we are now ready to deliver same.

You are hereby notified to place your lighter alongside said steamer Tuesday morning at nine o'clock for this purpose.

3972 Yours very truly,

WILLIAMS STEAMSHIP COMPANY, INC.
PAUL A. DWYER.

PAD:JF
CC-Bertschmann & Maloy,
53 Beaver St., N. Y. C.

Libellant's Exhibit 9.

3973

(Copy)

October 4, 1920.

The Williams Steamship Company, Inc.,
44 Whitehall Street,
New York, N .Y.

Gentlemen:— 168 CASKS CITRATE OF LIME
NOW ON S/S "WILLDOMINO".

We have your letter of the 2nd instant with respect to the above shipment. We have had 3974
this shipment carefully examined and find that it is absolutely worthless by reason of the damage which it sustained while in your custody. Accordingly, we abandon it to you and decline to take delivery of it.

As a matter of fact, if we had known the condition of this shipment before we paid our freight, we would not have paid any freight, as the goods are no longer in specie and we reserve our rights in respect of the freight which we have already paid under a mistake of fact.

3975

Yours very truly,

CITRO CHEMICAL COMPANY.

WWW/ES Secy. & Gen'l. Mgr.

3976

Libellant's Exhibit 10.

(PHOTOSTAT—both sides)

3977

3978

A. H. BULL & CO.

NEW YORK, N.Y.

MEDITERRANEAN—BLACK SEA SERVICE

Carried by A. H. BULL & CO. as Agents (the term Carrier hereinafter used to be taken as including said steamship and any substitute or continuing Carrier) from the shipper named on the back hereof, the packages described on the back hereof (hereinafter called the Goods, the Carrier's responsibility in respect of description thereof being limited as hereinafter provided) in apparent good order and condition; TO BE TRANSPORTED by steamship named on the back hereof (subject to substitution and other liberties as hereinafter provided, the term Vessel hereinafter used to be taken as including said steamship and any substituted or continuing vessel) to the destination named on the back hereof, or as near thereto as the Vessel can safely lie, lying always afloat, and there delivered in like good order and condition, in manner as hereinafter provided, upon payment of any unpaid freight and other sums payable hereunder by shipper, consignee and/or assigns, to the consignee named on the back hereof, or Order if so provided.

SUBJECT ALWAYS TO THE TERMS, CONDITIONS AND EXCEPTIONS OF THIS CONTRACT (upon which the rate of freight is based) AND WHICH ARE HEREBY MUTUALLY AGREED AS FOLLOWS:—

1. Parcel or id the number of packages all the particulars herein contained of the Goods as furnished by the shipper, the Carrier assumes nothing as to same, whether by way of description, marks, numbers, quantity, quality, contents, value, weight or measurement, and shall not be liable for any loss or damage to the Goods arising from any part of the Carrier's duty under this Bill of Lading not having been performed before, during or after the transit.

2. The words "Steamship Owner" as used herein include any person or persons or corporation or any part of them interested in the ownership or operation of any vessel or vessels, whether named on the vessel or any vessel or vessels, or any part or parts of any vessel or vessels, performing the whole or any part of the transportation herein provided for, and any such person or corporation may perform any of the duties and exercise any of the rights and immunities hereunder of the Carrier. The Carrier shall be entitled to employ any person, firm or corporation to act as its agent for any purpose whatsoever in connection with the Goods, and all such persons, firms or corporations shall be entitled to the benefit of all the provisions of this Bill of Lading as if they were the Carrier.

3. The Carrier shall have liberty, but shall not be obliged, to carry the Goods by any or all conveyances, vessels, boats, craft, lighters, barges, railroads, motor trucks or other means of transportation, whether owned or operated by the Carrier or not, and by any route or routes, at any time and in any order, whether or not customary or specified herein, and to transfer the Goods from one conveyance to another, and to deviate for the purpose of loading or discharging cargo or passengers, or for any purpose whatsoever, whether connected with the voyage or not, and to call at any port or place whether named herein or not, and to store the Goods at any such port or place, and to load and unload the Goods at any port or place, and to forward the Goods by any means of transportation, even though the same may involve additional charges, and all such transportation shall be subject to the terms hereof. The Carrier shall have a lien on the Goods for all charges incurred in respect thereof. The Carrier shall not be liable for any loss of or damage to the Goods occasioned by the acts of any such other Carrier or person, or by the negligence of any of its or their servants, agents or employees, and the Carrier shall not be liable for any loss of or damage to the Goods occasioned by the Carrier's own negligence or the negligence of its servants, agents or employees, unless such negligence shall be proved by the shipper, consignee and/or assigns. The Carrier shall not be liable for any loss of or damage to the Goods occasioned by the negligence of any such other Carrier or person, or by the negligence of any of its or their servants, agents or employees, unless such negligence shall be proved by the shipper, consignee and/or assigns, and then only to the extent of the proportion of the freight received by the Carrier which the value of the Goods lost or damaged bears to the total freight received by the Carrier for the transportation of the Goods, but in no event shall the Carrier be liable for more than the value of the Goods as stated in Clause 6 hereof. The Carrier shall not be liable for any loss of or damage to the Goods occasioned by the negligence of any such other Carrier or person, or by the negligence of any of its or their servants, agents or employees, unless such other Carrier or person is a subcontractor or agent of the Carrier, and

(CONTINUED FROM OVERPAGE)

24. It is mutually agreed that, in addition to the other terms and conditions of the bill of lading, which shall be deemed effected only in so far as inconsistent herewith, this shipment is at the sole risk of the owners thereof, of all risks of war, arrest, restraint, capture, seizure, detention, sinking, interference or hostilities on the part of any Power and of all consequences thereof; and the vessel shall have liberty in the discretion of the Master, Owner, Charterer or any Agent thereof to proceed notwithstanding any such sinking and stand or unarmed, also, if deemed advisable in the judgment of such Master, Owner, Charterer or Agent, in order to avoid loss, damage, delay, expense, or other disadvantage or danger to vessel, cargo, passengers or other interest, to leave or discharge the goods at port of shipment and/or wait at the port of shipment or elsewhere, and/or, either with or without proceeding to or toward the port of discharge or entering or attempting to enter or discharge the goods there and whether such proceeding, entry or discharge be permitted or not, to proceed to or toward any other port or ports in or not in any route to destination and/or return to the port of shipment once or oftener backwards or forwards in or not in any order or rotation, retaining the goods on board or discharging the same at risk and expense of the Owners thereof at port of shipment or elsewhere at the first or any subsequent call, and shall thereupon be relieved of all responsibility in respect thereof, and full bill of lading freight, extra compensation for any additional service, and any extra expense occasioned thereby shall be paid by Shipper, Consignee and/or assigns, and shall constitute a lien on the goods; and the vessel is privileged to carry any cargo not excepting contraband; and the vessel shall have liberty in any circumstances to comply with any orders or requests of the Government of the United States or of Great Britain, their Allies or any Government or other Department or bureau or agency thereof or of any person purporting to act with the authority of any such Government or department, bureau or agency.

Merchandise covered by this Bill of Lading not removed from quay within 48 hours after it has been discharged will have to pay such charges as may be assessed against such merchandise for such non-removal and the carrier has the option of storing the merchandise at any time after 48 hours from the time of its discharge onto the quay.

26. The Shipper, Vessel, Consignee, Destination and Goods referred to overpage as mentioned or described on this side (back) hereof are as follows:

Shipper Ferd. Baller & Co. Vessel Comm. of Aden

With privilege to substitute, transfer and other privileges as hereinbefore provided.

Bound for NEW YORK

Consignor: Order of Banca Commerciale Italiana B/L Number 17

Strike out "Order of" if Straight B/L

Party who may be notified (If Consigned to order)

(But no claim to attach for failure to notify)

SHIPPER'S DESCRIPTION OF GOODS.

(Carrier's responsibility for description being limited as hereinbefore provided)

Marks	Numbers	Number of Packages	Description	Gross Weight Kilos	Gross Weight Lbs.	Cubic Feet	Value See Clause 8
C. A. P. Ferd Baller & Co Messina	8964 / 9446	483	Four hundred eighty three Casks Citrate of Lime	341019			

"Please notify: messrs Chas. Pfizer & Co. Inc. 81 Maiden Lane. New York. Upon arrival"

STEAMER FILLING UP ONLY ON HER WAY WESTWARD TO NEWYORK.

27. AND FINALLY in accepting this Bill of Lading the Shipper, Owner and Consignee of the goods agree to be bound by all its terms, conditions, exceptions and exemptions on this page and on overpage, whether written, printed or stamped, as fully as if signed by all of them.

In Witness Whereof, the Carrier by its representative has signed three Bills of Lading (exclusive of non-negotiable copies) all of the same tenor and date, one of which being accomplished the others to stand void.

Dated Messina 12 June 1922

A. H. BULL & CO., Agents

[signature]

CU. FT.	RATE PER 40 CU. FT.	FREIGHT

FREIGHT PAYABLE AT DESTINATION

PREPAID $ 554.3.2

Libellant's Ex. 10 (Back)

Libellants Ex. 11

L - 11
Feb 27/23
JCB

Shipped, in apparent good order and condition by Ferd. Baller & C.

Quisaldo San Giorgio, it being understood that goods received on the ship's wharves or lighters are to be considered as shipped, ship's liability being the same as if on board, bound for NEW YORK with liberty to call at any port.

C. A.
P
263/443
598/783
Ferd. Baller & C
Messina

(261) two hundred Sixty-one Oarks Citrate of Lime K 175.512

Società Nazionale di Navigazione

Capitale Lit. 150.000.000 interamente versato

SEDE IN GENOVA

ERNESTO ILARDI & FIGLI
STEAM-SHIP OWNERS, AGENTS & BROKERS

Charges MESSINA

Primage 5 % »

Total £.

Freight.

Kos 175.512 at 35/ p. 1000 Kos. Ls.

FREIGHT PAYAB

Steamer filling up only on her westward way to Newyork

paid to be marked and numbered as above (weight, measure, quality, contents and value, although mentioned in the Bill of Lading, to be considered as unknown to the Master, unless expressly recognised and agreed to the contrary), and to be delivered in like good order and condition at NEW YORK or any other place within the jurisdiction of the Custom-House of the aforesaid port of NEW YORK unto Chas Pfizer & Co Inc New-York or to his or their assigns, freight on the goods to be paid at NEW YORK and charges as per margin. General Average payable according to York and Antwerp Rules 1890.

IT-IS MUTUALLY AGREED AS FOLLOWS: FIRST: The Ship and Carrier shall not be liable for loss or damage occasioned by the perils of the seas or other waters, by fire from any cause or wheresoever occurring, by barratry of the Master or crew, by enemies, pirates, robbers or thieves, by arrest and restraint of princes, rulers or people, by explosion, bursting of boilers, breakage of shafts, or any latent defect in hull, machinery or appurtenances, or unseaworthiness of the ship even existing at time of shipment or sailing on the voyage, provided the owners have exercised due diligence to make the vessel seaworthy, by collision, stranding, or other accidents of navigation of whatsoever kind, even when occasioned by the negligence default or error in judgment of the pilot, master, mariners, or other servants of the ship owner, nor for any loss or damage caused by heat, decay, putrefaction, vermin, rust, sweat, change of character, shrinkage, leakage, breakage, nor for any loss or damage arising from the nature of the goods or the insufficiency of the packages; nor for any country damages; nor for the obliteration, errors, insufficiency or absence of marks or numbers, address or description; nor for risk of craft, hulk and transhipment; nor for any loss or damage caused by the prolongation of the voyage; nor for any loss or damage occasioned by causes beyond his control. Fault of master and crew in the navigation or management of the ship will not liberate the consignees from contributing their proportion in General Average.

SECOND: The ship shall have liberty to sail without pilots; to tow and assist vessels in distress; to deviate for the purpose of saving life or property; that the Carrier shall have liberty to convey goods in lighters to and from the ship at the risk of the owner of the goods and in case the Ship shall put into a port of refuge or be prevented from any cause from proceeding in the ordinary course of her voyage, to tranship the goods to their destination by another vessel.

THIRD: The value of each package receipted for as above does not exceed the sum of One Hundred Dollars, unless otherwise stated herein, on which basis the rate of freight is adjusted. Neither Ship nor Carrier shall be liable for gold, silver, bullion, specie, documents, jewelry, works of art, silks, furs, timepieces, porcelain, or other highly valuable articles, unless notice of true character and value thereof is given, and same is entered in the bill of lading.

FOURTH: Shippers shall be liable for any loss or damage to Ship or Cargo caused by inflammable, explosive or other dangerous goods, shipped without full disclosure of their nature, whether such shipper shall have been aware of it or not, and whether such shipper be principal or agent; and such goods may be thrown overboard or destroyed at any time whithout compensation.

FIFTH: The Carrier shall have a lien on the goods for all fines or damages which the Ship or Cargo may incur or suffer by reason of the incorrect or insufficient marking of packages or description of their weight or contents.

SIXTH: Goods once received for shipment cannot be taken away by the shipper except upon payment of the full freight, damages and expenses sustained by the Ship or Cargo through such taking away.

SEVENTH: In case Ship shall be prevented from reaching her destination by Quarantine, the Carrier may discharge the goods into any depot or lazaretto, and such a discharge shall be deemed a final delivery under this contract, and all the expenses thereby incurred on the goods shall be a lien thereon. In case of blockade or interdict of the port of discharge or if without such blockade or interdict the entering of or discharging in the port shall be considered by the master unsafe by reason of war or disturbance, or ice, or strikes or lock-outs, or from any other cause, the master may land the goods at any other port which he may consider safe at the expense and risk of the owner of the goods. The master to have the right of accomplishing this bill of lading at any other port which he may consider safe.

EIGHTH: The ship has liberty of filling up and/or bunkering at any port or ports in or out of the way.

NINTH: Full freight is due on damaged goods and on goods diminished by leakage, but no freight is due on any increase in bulk or weight caused by the absorption of water during the voyage.

TENTH: The carrier shall have a lien on all goods or payment of freight and charges, including dead freight, demurrage, forwarding charges, charges for carriage to

Società Nazionale di Navigazione

Capitale L.it. 150.000.000 interamente versato

SEDE IN GENOVA

ERNESTO ILARDI & FIGLI

STEAM-SHIP OWNERS, AGENTS & BROKERS

Charges MESSINA

Primage 5 % »

Total £.

Freight.

Kns 175.512 at 35/ p. 1000 Kgs. Lt.

FREIGHT PAYABLE AT DESTINATION

Ch. M. at p. Cubic Meter »

Freight in all Lt. 30.7.3/-

353/463
598/783
Prod. Ballerà e
Messina

Steamer filling up only on her westward way to Newyork

Shipped in apparent good order and condition by ... on board the ... NEW YORK ... or any other steamer, within the jurisdiction of the Custom-House of the aforesaid port of NEW YORK ... Chas Fryer & Co Inc New York ... or to his or their assigns, freight on the goods to be paid at NEW YORK ... and charges as per margin. General Average payable according to York and Antwerp Rules 1890.

IT-IS MUTUALLY AGREED AS FOLLOWS: FIRST: The ship and Carrier shall not be liable for loss or damage occasioned by the perils of the seas or other waters, by fire from any cause or whatsoever occurring, by barratry of the Master or crew, by enemies, pirates, robbers or thieves, by arrest and restraint of princes, rulers or people, by explosion, bursting of boilers, breakage of shafts, or any latent defect in hull, machinery or appurtenances, or unseaworthiness of the ship even existing at time of shipment or sailing on the voyage, provided the owners have exercised due diligence to make the vessel seaworthy, by collision, stranding, or other accidents of navigation of whatsoever kind, even when occasioned by the negligence default or error in judgment of the pilot, master, mariners, or other servants of the ship owner, nor for any loss or damage caused by heat, decay, putrefaction, vermin, rust, sweat, change of character, shrinkage, leakage, breakage, nor for any loss or damage arising from the nature of the goods or the insufficiency of the packages; nor for any country damages; nor for the obliteration, errors, insufficiency or absence of marks or numbers, address or description; nor for risk of craft, hulk and transhipment; nor for any loss or damage caused by the prolongation of the voyage; nor for any loss or damage occasioned by causes beyond his control. Fault of master and crew in the navigation or management of the ship will not liberate the consignees from contributing their proportion in General Average.

SECOND: The ship shall have liberty to sail without pilots; to tow and assist vessels in distress; to deviate for the purpose of saving life or property; that the Carrier shall have liberty to convey goods in lighters to and from the ship at the risk of the owner of the goods and in case the ship shall put into a port of refuge or be prevented from any cause from proceeding in the ordinary course of her voyage, to tranship the goods to their destination by another vessel.

THIRD: The value of each package receipted for as above does not exceed the sum of One Hundred Dollars, unless otherwise stated herein, on which basis the rate of freight is adjusted. Neither Ship nor Carrier shall be liable for gold, silver, bullion, specie, documents, jewelry, works of art, silks, furs, timepieces, porcelain, or other highly valuable articles, unless notice of true character and value thereof is given, and same is entered in the bill of lading.

FOURTH: Shippers shall be liable for any loss or damage to ship or Cargo caused by inflammable, explosive or other dangerous goods, shipped without full disclosure of their nature, whether such shipper shall have been aware of it or not, and whether such shipper be principal or agent; and such goods may be thrown overboard or destroyed at any time without compensation.

FIFTH: The Carrier shall have a lien on the goods for all fines or damages which the ship or Cargo may incur or suffer by reason of the incorrect or insufficient marking of packages or description of their weight or contents.

SIXTH: Goods once received for shipment cannot be taken away by the shipper except upon payment of the full freight, damages and expenses sustained by the ship or Cargo through such taking away.

SEVENTH: In case ship shall be prevented from reaching her destination by Quarantine, the Carrier may discharge the goods into any depot or lazaretto, and such a discharge shall be deemed a final delivery under this contract, and all the expenses thereby incurred on the goods shall be a lien thereon. In case of blockade or interdict of the port of discharge or if without such blockade or interdict the entering of or discharging in the port shall be considered by the master unsafe by reason of war or disturbance, or loss, or strikes or lock-outs, or from any other cause, the master may land the goods at any other port which he may consider safe at the expense and risk of the owner of the goods. The master to have the right of accomplishing this bill of lading at any other port which he may consider safe.

EIGHTH: The ship has liberty of filling up and/or bunkering at any port or ports in or out of the way.

NINTH: Full freight is due on damaged goods and on goods discharged by lighters, but no freight is due on any increase in bulk or weight caused by the absorption of water during the voyage.

TENTH: The carrier shall have a lien on all goods or payment of freight and charges, including dead freight, demurrage, forwarding charges, charges for carriage to port of transhipment and the fines, damages and expenses mentioned in § 5 and § 7, and for General Average claims, and, if on a sale of goods at destination for freight and charges the proceeds, less duty, fail to cover such freight and charges, the Carrier shall be entitled to recover such differences from the Shipper.

ELEVENTH: In the event of claim for loss, damage or short delivery the same shall be adjusted on the basis of the invoice value of the entire shipment adding expenses necessarily incurred.

TWELFTH: Freight and charges to be paid immediately on the landing of the goods, without any allowance, credit or discount, Sterling freight payable at short sight of Exchange on London quoted at noon on the day of the Ship's arrival, or, if a holiday, on the preceding day. Prepaid Freight cannot be reclaimed, Ship or Goods lost or not lost.

THIRTEENTH: Goods to be taken from the Ship by the Consignees directly they come to and in discharging the ship, and the Carrier's responsibility to cease, packages by lighters, immediately the goods leave the Ship's deck or tackle. If not taken from alongside by Consignees, they will be landed and deposited at the expense of the Consignees, and at his risk of fire, loss or injury, on the dock, or in craft, the Collector of the Port being hereby authorized to grant a general order for the discharge, immediately after the entry of the Ship.

FOURTEENTH: Parcels for different Consignees, collected and made up in single packages, addressed to one party for delivery in America, for the purpose of evading payment of parcel freight, will, upon examination by the Consignee, be charged with the proper freight on such parcels.

FIFTEENTH: Also, owing to conditions of war or hostilities existing or threatened, this shipment is accepted at the sole risk of the owners thereof of capture, seizure, detention or interference of any sort by any Power; and the carrier and the representatives are privileged in its or their absolute discretion, if deemed proper for the protection of the vessel or any cargo or to avoid loss, damage, delay, seizure or other disadvantage or danger, either with or without proceeding in or towards the port of discharge or entering or attempting to enter or discharge the goods there, to take any safety or damage be permitted or not to proceed to any other port or ports or return to the port of shipment, once or oftener in any order or rotation, reshipping the goods on board or discharging the same at risk and expense of the owners thereof at any such port or ports at the first or any subsequent call, and full bill of lading freight for the whole distance to the ultimate destination and all other charges shall be paid by shipper, consignee and/or assignee, and shall be a lien on the goods.

AND FINALLY: In entering into this bill of Lading, the Shipper, Owner and Consignee of the goods agree to be bound by all the stipulations, exceptions and conditions, whether written or printed, as fully, as if they were all signed by such Shipper, Owner or Consignee.

IN WITNESS WHEREOF the Master or Agent of the said Ship has affirmed to Four (4) bills of Lading, all of this tenor and date, one of which being accomplished the others to stand void.

Dated at Messina the 16 day of January 1899

FOR THE MASTER
Ernesto Ilardi & Fgli
Agents.

NB. It is agreed that shipowners are not responsible for weak condition of cases with potatoes, onions, wine, oil, sardines or any other goods, nor for breakage or damage from any cause whatever, nor for leakage from any cause whatever (including slipstring) nor for holes made by hooks, nor for shortages or damages resulting from goods, packed in bales or bags.

48 Ore dalla data di partenza del piroscafo, sulla merce non ritirata s'intende convenuto lo scarico al pericolo del destinatario, con facoltà in spesa di magazzinaggio e secondo delle tariffe e degli usi vigenti nel porto.

Libellant's Exhibit 11.

3979

(PHOTOSTAT—both sides)

3980

3981

Libellant's Exhibit 12.

3982

(PHOTOSTAT)

3983

3984

Libellants Ex.12

FRATELLI BONANNO
MESSINA
AGENTS

Lloyd Insulare

SOCIETÀ ANONIMA IMPRESE MARITTIME
E COMMERCIO CARBONI

Head office PALERMO

Branches Catania - Messina - Syracuse - Licata
Porta Empedocle - Trapani - Milazzo

L - 12 Feb 27/23

Shipped, in apparent good order and condition, by Ferd. Baller & Co now lying in the
on board the Steamship Lloyd for carriage to NEW YORK the following goods
Port of Messina
viz.:— 36 Seven hundred thirty six Casks Extract of Lime L. 514.99

marked and numbered as per margin. The said Goods to be delivered, from the Steamer's deck (where Steamer's responsibility ceases) to Lund Commercial Warehouse

or to their Assigns, in the like good order and condition, subject to the clauses and conditions expressed in this Bill of Lading, which constitutes the Contract of Carriage between the Shipowners, Shippers, and Consignees and/or Owners of the goods.

The Freight, Primage, and other charges (if any) as stated in the margin, to be paid by receivers in exchange for Bill of Lading or Delivery Order, and are due, if paid by Shippers, Goods or Vessel lost or not lost, on signing of the Bills of Lading; if payable by Consignees, on arrival of the Goods at Port of discharge, in cash, at the current rate of exchange on date of Steamer's arrival. The Owners of the Steamer, their Agents, and the Master, jointly and severally, have the right to retain the Goods mentioned in this Bill of Lading, or part of them, in payment of Freight, Primage, Charges, Demurrage, or Average, due by the Shippers or Consignees, to whomsoever the Goods may belong, for account of the same or of former Freights, &c., not settled. Average payable according to York/Antwerp Rules, 1890. Steamer to have liberty to adjust compasses, and also to dock with cargo on board, after commencing the voyage, to carry cattle or other cargo on deck, to sail without pilots, and to tow and assist vessels in all situations, and to save life and/or property.

Any duty, tax, or impost, of whatever nature, levied upon the Steamer by the authorities at the Port of Discharge, or elsewhere, for, or in connection with the Goods herein described, to be paid by the Consignees of the Goods before delivery.

Shippers undertake to mark each package before shipment with the name of the Port of destination in letters of least two inches in length, and not to ship liquids, or other goods which may cause damage, without marking the nature of the contents on the outside of each package; also to endorse on the Bills of Lading all requisite particulars in time to enable the Steamer to be cleared at the Port of loading or transhipment, and to complete Customs Documents, and comply with all regulations imposed by the authorities at Ports of Shipment or Discharge.

Shippers shall be liable for any loss or damage caused by inflammable, explosive, or dangerous Goods, to Ship, Cargo, or otherwise, shipped without full disclosure of their nature, whether such Shippers shall have been aware of it or not, and whether such Shippers be principals or agents; such Goods may be thrown overboard or destroyed by the Master of the Steamer at any time without any liability in respect thereof attaching to the Master or Owner of the Steamer.

The Company shall not be responsible for any loss, detention of, or damage to the Goods, or the consequences thereof, or expenses occasioned by and/or arising from any of the following causes: — viz., The Act of God, Perils of the Sea, Fire on Board, in Hulk, or Craft, or on Shore; Barratry of the Master or Crew, Enemies, Pirates, Robbers, or Thieves (whether the latter be in the service of the ship or not), Arrests and Restraints of Princes, Rulers, and People, Collisions and Strandings excepted. Not answerable for any act, neglect, default, or error in judgment of the Pilot, Master, Crew, Stevedores, or other Persons whomsoever for whose acts the Owners would otherwise be responsible in the navigation or management of the ship or in towing or any way dealing with the cargo or otherwise howsoever, or for Straining, Jettison, Accidents of Navigation, Lighterage, Transhipment, Land Transit or Storage Afloat or Ashore, Canals and Rivers, Leakage, Breakage, Rust, Heat, Sweat, Hook Marks, or Injury from Hooks, Bilging of Packages, decay or change of character arising from the nature of the Goods shipped, from insufficiency of Packages or Packing, from Steam, Rain, or Spray; from Stowage contact with, or Smell, or Evaporation from other Goods; from effects of Climate, or from the heat of Holds or otherwise howsoever; obscure, inaccuracy or obliteration of Marks, Numbers, Destination, or Address of the Packages. Not answerable for any of the following causes or for the consequences thereof or arising therefrom: — Explosion, bursting of the Boilers, breakage of Shafts or any latent defect in the Hull, Boilers, Machinery, or Appurtenances, or unseaworthiness or unfitness of the Ship, Machinery, Appurtenances, whether existing prior to or at the time of loading or sailing, from which unseaworthiness or unfitness, loss, or damage would not arise if the ship were navigated or managed with ordinary care and skill, or for any other unseaworthiness or unfitness whether existing prior to or at the time of loading or sailing unless it is established as regards such other unseaworthiness and unfitness the owners have not exercised due diligence to make the vessel seaworthy.

The Company reserve to themselves liberty to carry Goods of all kinds, dangerous or otherwise, also before sailing, or at any period of the voyage, and so often as may be deemed expedient at any port or place, to tranship, or land and re-ship, by lighter or otherwise, the Goods at the Port of Shipment, or at any Port or Ports into any other Steamer or conveyance; or to discharge the Goods from the Steamer as soon as she is ready to unload on the Quay, or into Hulk, or temporary Depôt, Lazaretto, or hired Lighter, at the option of and by the Agent of the Owners of the Vessel, at the Shippers' or Consignees' risk and expense, the Shipowner's responsibility in all cases ceasing as soon as the goods leave the Ship's tackle.

In case any part of the Goods cannot be found for delivery during the Steamer's stay at the Port of Destination, they are to be forwarded, when found, at the Company's expense, the Steamer not to be held liable for any claim for delay or otherwise.

In case of the Blockade or Interdict of the Port of Discharge, Strikes or Lock-outs, or if the Master shall consider it unsafe or impracticable to enter, enter, or Discharge cargo in the Port of Discharge, or if the Steamer shall be prevented by any cause whatever from loading the cargo at the Port of Discharge, whether by reason of War, Quarantine, or Disturbances, peril, state of the weather, or otherwise, or the consequences thereof, the Master may in his unquestioned discretion land, discharge, or tranship the Goods, or any part thereof, into any Depôt, Ship, Hulk, or Lazaretto or Quay where at the expense and risk of the Owners of the Goods, the Company being free from all liability or responsibility

Ferd. Baller & Co. Steamer "Lloyd" at Messina Feb. 1923

Libellants Ex. 12
(Back)

deliver to Lund & Brunck

Lund & Brunck

BUNGE, DORMEGALLI, ITALIA
AGENTS

TO BE GIVEN UP ONLY ON HER DAY VESTWARD

C. A.
P.
5154/5889
Ferd. Baller & Co
Messina

ABEN

Lloyd Insulare

SOCIETÀ ANONIMA IMPRESE MARITTIME
E COMMERCIO CARBONI

Head office PALERMO

Branches Catania - Messina - Syracuse - Licata
Porto Empedocle - Trapani - Milazzo

STEAMER FILLING UP ONLY ON HER WAY POSTWARD TO NEWYORK

C. L
D 1
5154/5884
Ferd. Bäller & Co
Messina

Freight at 32/-	pr. Ton 2240	8	3	6	7	8	
" "	"						
" "	"						
" "	"						
" "	"						
Primage							
"	FREIGHT TO BE PAID						
Charges							
Collecting on charges							
Bills of lading							
Total:		8	3	6	7	8	

Payable at NEW YORK

Postage: Messrs. Chas. Fiser & Co. Ltd. Mail Boat upon arrival

marked and numbered as per margin. The said Goods to be delivered [illegible]
bility ceases) to Banco Commerciale Italiana

or to their Assigns, in the like good order and condition, subject to the clauses and conditions expressed in this Bill of Lading, which constitutes the Contract of Carriage between the Shipowners, Shippers, and Consignees, and/or Owners of the goods.

The Freight, Primage, and other charges (if any) as stated in the margin, to be paid by Receivers in exchange for Bill of Lading or Delivery Order, and are due, if paid by Shippers, Goods or Vessel lost or not lost, on signing of the Bills of Lading; if payable by Consignees, on arrival of the Goods at Port of discharge, in cash, at the current rate of exchange on date of Steamer's arrival. The Owners of the Steamer, their Agents, and the Master, jointly and severally, have the right to retain the Goods mentioned in this Bill of Lading, or part of them, in payment of Freight, Primage, Charges, Demurrage, or Average, due by the Shippers or Consignees, to whomsoever the Goods may belong, for account of the same or of former Freights, &c., not settled. Average payable according to York/Antwerp Rules, 1890. Steamer to have liberty to adjust compasses, and also to dock with cargo on board, after commencing the voyage, to carry cattle or other cargo on deck, to sail without pilots, and to tow and assist vessels in all situations, and to save life and/or property.

Any duty, tax, or impost, of whatever nature, levied upon the Steamer by the authorities at the Port of Discharge, or elsewhere, for, or in connection with the Goods herein described, to be paid by the Consignees of the Goods before delivery.

Shippers undertake to mark each package before shipment with the name of the Port of destination in letters of least two inches in length, and not to ship liquids, or other goods which may cause damage, without marking the nature of the contents on the outside of each package; also to endorse on the Bills of Lading all requisite particulars in time to enable the Steamer to be cleared at the Port of loading or transhipment, and to complete Consular Documents, and comply with all regulations imposed by the authorities at Ports of Shipment or Discharge.

Shippers shall be liable for any loss or damage caused by inflammable, explosive, or dangerous Goods, to Ship, Cargo, or otherwise, shipped without full disclosure of their nature, whether such Shippers shall have been aware of it or not, and whether such Shippers be principals or agents; such Goods may be thrown overboard or destroyed by the Master of the Steamer at any time without any liability in respect thereof attaching to the Master or Owner of the Steamer.

The Company shall not be responsible for any loss, detention of, or damage to the Goods, or the consequences thereof, or expenses occasioned by and/or arising from any of the following causes: — viz., The Act of God, Perils of the Sea, Fire on Board, in Hulk, or Craft, or on Shore; Barratry of the Master or Crew, Enemies, Pirates, Robbers, or Thieves (whether the latter be in the service of the ship or not), Arrests and Restraints of Princes, Rulers, and People, Collisions and Strandings excepted. Not answerable for any act, neglect, default, or error in judgment of the Pilot, Master, Crew, Stevedores, or other Persons whomsoever for whose acts the Owners would otherwise be responsible in the navigation or management of the ship or in stowing or any way dealing with the cargo or otherwise howsoever, or for Straining, Jettison, Accidents of Navigation, Lighterage, Transhipment, Land Transit or Storage Afloat or Ashore, Canals and Rivers, Leakage, Breakage, Rust, Heat, Sweat, Hook Marks, or Injury from Hooks, Soiling of Packages, decay or change of character arising from the nature of the Goods shipped, from insufficiency of Packages or Packing, from Steam, Rain, or Spray; from Stowage contact with, or Smell, or Evaporation from other Goods; from effects of Climate, or from the heat of Holds or otherwise howsoever; or damage, inaccuracy or obliteration of Marks, Numbers, Destination, or Address of the Packages. Not answerable for any of the following matters or for the consequences thereof or arising therefrom: — Explosion, bursting of the Boilers, breakage of Shafts or any latent defect in the Hull, Boilers, Machinery, or Appurtenances, or unseaworthiness or unfitness of the Ship, Machinery, Appurtenances, whether existing prior to or at the time of loading or sailing, from which unseaworthiness or unfitness, loss, or damage would not arise if the ship were navigated or managed with ordinary care and skill, or for any other unseaworthiness or unfitness whether existing prior to or at the time of loading or sailing unless it is established as regards such other unseaworthiness and unfitness the owners have not exercised due diligence to make the vessel seaworthy.

The Company reserve to themselves liberty to carry Goods of all kinds, dangerous or otherwise, also before sailing, or at any period of the voyage, and so often as may be deemed expedient at any port or place, to transship, or land and re-ship, by lighter or otherwise, the Goods at the Port of Shipment, or at any Port or Ports into any other Steamer or conveyance; or to discharge the Goods from the Steamer as soon as she is ready to unload on the Quay, or into Hulk, or temporary Depôt, Lazzarette, or hired Lighter, at the option of and by the Agent of the Owners of the Vessel, at the Shippers' or Consignees' risk and expense, the Shipowner's responsibility in all cases ceasing as soon as the goods leave the Ship's tackle.

In case any part of the Goods cannot be found for delivery during the Steamer's stay at the Port of Destination, they are to be forwarded, when found, at the Company's expense, the Steamer not to be held liable for any claim for delay or otherwise.

In case of the Blockade or Interdict of the Port of Discharge, Strikes or Lock-outs, or if the Master shall consider it unsafe or impracticable to enter, enter, or Discharge cargo in the Port of Discharge, or if the Steamer shall be prevented by any cause whatever from loading or discharging at the Port of Discharge, whether by reason of War, Quarantine, or Disturbances, surf, state of the weather, or otherwise, or the consequences thereof, the Master may in his unquestioned discretion land, discharge, or tranship the Goods, or any part thereof, into any Depôt, Ship, Hulk, or Lazzaretto at any place Port to which he may think fit to proceed, at the expense and risk of the Owners of the Goods, the Company being from henceforth all liability responsibility as soon as the Goods leave the Ship's tackles.

Not responsible for contents of Bales ungreased and without Iron Hoops.

In the event of failure to comply with the foregoing conditions, or any of them, the Company to be free from all responsibility for the Goods, and the Shipper to be liable for any fines, expenses, loss, or damage sustained or incurred by the Company, or by the Owner of other Goods on board, by reason of such failure or omission, and the Company to have a lien upon the Goods, to be made available if necessary by sale or otherwise, for and until payment of all such fines, expenses, loss, or damage, or for and until payment of any previously contracted freight, primage, charges, fines, loss or expenses due either by shippers or consignees.

The Company is not liable for Gold, Silver, Specie, Bullion, Jewellery, Precious Stones, Watches, Clocks, Notes, Bills, Securities, or Documents of any description; Works of Art, Silks, Furs, or Lace, or other Articles of special value, unless so described at the time of Shipment, and the value expressed in the Bill of Lading, extra freight being paid as agreed upon. The Company's Liability in case of loss, detention, or injury to Goods for which they may be responsible, to be calculated on, and in no case to exceed the invoice cost; nor will the Company be responsible for any loss or damage incapable of being covered by insurance. Notice of any claim arising under this Bill of Lading must be given by the Consignee to the Company's Agent at the Port of Destination, within 48 hours after the landing of, or failure to deliver Goods; otherwise all right of claim to be forfeited.

All Articles of Glass, or contained in Glass, or any of a fragile nature, and all Packages, &c., carried on deck will be taken at Shippers' and sole risk, and the Shippers agree that the Company shall not be held responsible for loss or injury arising from any cause whatever.

Weight, Contents, Quality, Quantity, and Value unknown, and Shipowner not accountable for same, nor for slack bags.

Master Porterage, Landing, Shedding, Weighing, and Delivery of the Cargo to be done by the Consignees of the Ship, at the expense and risk of the Receivers of the Goods.

All the exceptions and stipulations in favour of the Shipowner contained in this Contract shall continue to apply although the vessel may have deviated from the contract voyage and although such deviation may amount to a change or abandonment of voyage, any warranty or rule of law to the contrary notwithstanding, and for the purpose of this Contract all such deviations shall be deemed to be within the contract voyage; and in accepting this Bill of Lading, the Shippers or other Agents of the Owner of the property carried expressly accept and agree to all its stipulations, exemptions, and conditions, whether written, printed or stamped.

In Witness whereof, the Master or Agent of the said Steamer hath signed Three Bills of Lading, all of this tenor and date, one of which being accomplished, the others to be void.

Dated in Messina this 2 June 1922

The Master

Ferd. Bäller & Co

BANCO COMMERCIALE ITALIANA
AGENTS

Libellants Ex. 13

L-13.
7427/23
3/13

SANTI LISCIOTTO Agente MESSINA

NAVIGAZIONE GENERALE ITALIANA

Società Riunite FLORIO, RUBATTINO e LLOYD ITALIANO

ANONIMA CON SEDE IN GENOVA - Capitale Sociale Lit. 180.000.000 interamente versato

NEW-YORK — ANDATA

Polizza N. 12

Messina, li 7 GIUGNO 1922 192

Sono state caricate dal Sig. Ferd. Baller & C *sul Piroscafo* ADIGE

Capitano *e trasportate a* NEW-YORK *ed al felice arrivo consegnate*

a Banca Commerciale Italiana *le merci che il caricatore dichiara come in appresso:*

Il nolo pagato Destino come da distinta. A

LIQUIDAZIONE DEL NOLO, ecc.	LIRE STERLINE (Oro effettivo)	MARCHE	NUMERI	Quantità dei Colli	QUALITÀ	Volume in m. c.	PESO	VALORE
M. c. a p. M. c.		C.A P	6228 / 2515	238	Bottisettecentotrentaotto citrato di calce		516298	
Kg. 516298 . 32/6 ‰ Kg.	838-19-8	Ferd. Baller & Co Messina			"Please Notify: Messrs. Chas. Pfizer & Co. Inc. 81 Maiden Lane, New-York, upon arrival"			
Casse p. Cassa								
% s. Valore								
TOTALE NOLO	838 19 8				(STEAMER FILLING UP ONLY ON HER WAY WESTWARD TO NEWYORK)			
Alzata all'imbarco e allo sbarco								
TOTALE PAGATO								
Rimborso (L.it.)								
Provvigione d'incasso s. Rimborso 3 %								
TOTALE DA PAGARSI A DESTINO	838 19 8							

Informare dell'arrivo della merce Sig

(Indicazione necessaria per le polizze all'ordine)

Ripetere in tutte lettere il quantitativo totale dei colli.

Libellants Ex. 13
(Back)

NEW-YORK
(Andata)

Il contratto espresso nella parte anteriore di questa polizza di carico è fatto ai seguenti patti e condizioni:

Art. 1. — Le polizze di carico devono essere redatte in conformità delle disposizioni delle vigenti leggi e delle norme delle autorità portuali, doganali, consolari e delle disposizioni della Società Armatrice.

I certificati consolari, di sanità ed altri a corredo della polizza di carico, devono essere procurati dal caricatore, e qualunque multa spesa e conseguenza derivasse per mancanza od irregolarità di detti documenti, resterà a carico del caricatore e del ricevitore.

Art. 2. — Tutti i colli devono avere impressi in modo assolutamente indelebile, marche, contromarche, numeri, distintivi, destinazione in corrispondenza alle indicazioni apposte sul fusto d'imbarco e sulla polizza di carico.

Ogni collo deve essere ben condizionato, le casse devono essere rinforzate con cerchi di ferro sulle estremità o con maglie di sicurezza debitamente collocate e le merci poste in sacchi devono avere doppio sacco.

Il Capitano e la Società Armatrice sono esonerati da ogni responsabilità per tutte le conseguenze derivanti dalla trasgressione a queste prescrizioni.

Art. 3. — L'imbarco delle merci viene effettuato dal Capitano o dalla Società Armatrice a mezzo d'imprese di loro gradimento, per conto, rischio e spesa del caricatore. La responsabilità del Capitano e della Società Armatrice comincia dopo l'effettivo collocamento della merce nella stiva del piroscafo.

Art. 4. — Le dichiarazioni inserite nella presente polizza circa il peso, la misura, il contenuto ed il valore dei colli sono considerate come unilateralmente provenienti dal caricatore e non costituiscono prova alcuna contro il capitano o ricognizione da parte di questo, essendo gli obblighi del capitano e della Società Armatrice limitati alla riconsegna delle cose caricate nelle stesse condizioni di imballaggio in cui furono ricevute, salvi i casi di forza maggiore e gli altri previsti dalla presente polizza. Ogni incaglio, richiamo e del caricatore intorno alla natura delle cose caricate, pone a carico del medesimo e delle merce tutte le responsabilità, danni e spese conseguenti.

Art. 5. — Il Capitano e la Società Armatrice si riservano, nel loro esclusivo interesse, la facoltà di verificare il peso, il volume ed il contenuto dei colli, così all'imbarco come allo sbarco. Risultando da tale verifica che il peso e il volume dichiarato sia inferiore al vero o che il contenuto dei colli appartenga ad una classe superiore a quella dichiarata, il caricatore od il ricevitore dovranno pagare doppio nolo sull'intera partita e le spese tutte di verifica.

Art. 6. — Il Capitano e la Società Armatrice non sono responsabili degli oggetti di valore e delle merci classificate tali, che fino a concorrenza del valore indicato dal caricatore sulla polizza, valore che dovrà essere anche scritto sui buoni di imbarco ed a condizione che sia stato pagato il nolo in base a tariffa e che siano convenientemente imballati: se posti in sacchi di tela, la cucitura deve essere fatta dall'interno e suggellata con ceralacca all'apertura; se in casse queste devono internarsi nello spessore del legno. L'impronta del suggello deve essere riprodotta sulla polizza.

Il ritiro dei valori a destinazione dev'essere eseguito appena arrivato il piroscafo, contro la consegna della polizza di carico quietanzata. Qualora il ricevitore non si presenti pel ritiro, il capitano ha la facoltà a sua scelta, di scaricarli e metterli in deposito o di conservarli a bordo riportandoli al porto d'imbarco a spese e rischio del caricatore e del ricevitore.

Art. 7. — Il mantenimento e la cura degli animali durante il viaggio sono a carico del loro proprietari: il Capitano e la Società Armatrice non rispondono della loro fuga, mortalità e di qualsiasi altro danno che potesse derivare loro durante il viaggio.

La custodia e cura degli animali durante la navigazione sono assunte dal caricatore, che prende pure a suo carico ogni rischio e spesa pel trasporto e la prestazione d'opera del personale addetto agli animali.

Art. 8. — Tutte le merci dannose, infiammabili, esplosive, armi e munizioni di qualunque natura, oltre alla dovuta indicazione da farsi sulla polizza dal caricatore, devono da quest'ultimo venir dichiarate in modo speciale con apposita lettera alla Società Armatrice. In difetto di tale dichiarazione il caricatore sarà responsabile verso la Società Armatrice ed i terzi, di tutti i danni, multe e confische e conseguenze qualsiasi. Il Capitano e la Società Armatrice si riservano facoltà d'accettare o rifiutare tali merci ed il caricatore autorizza in caso di mancata, incompleta od inesatta dichiarazione, a gettare tali merci rinunciando ad ogni domanda e pretesa per la loro perdita, fermo l'obbligo del pagamento del nolo. Il Capitano e la Società Armatrice si riservano facoltà di caricare ogni genere di merce da nave, infiammabile, esplosiva, corrosiva, armi, munizioni, rinunziando il caricatore e il ricevitore ad ogni reclamo e pretesa per qualsiasi titolo o causa.

Art. 9. — Il caricatore espressamente autorizza il Capitano e la Società Armatrice, in deroga all'articolo 498 Codice di commercio, di caricare le sue merci sopra coperta.

Art. 10. — Il Capitano e la Società Armatrice non sono responsabili per perdita, danno o ritardo causati o dipendenti da disposizioni di Governo, di Principi, di Potenze, riconosciute o non, da requisizioni operate dagli stessi o da qualsiasi altra Autorità, da ogni evento di guerra diretto o indiretto: dai pirati, dai ladri in terra od a bordo, dalla baratteria del Capitano, dell'equipaggio; da sommosse, da scioperi, da lockouts e da agitazioni operaie; da incendi ed esplosioni a bordo, sui pontoni, sulle chiatte, nei magazzini o in qualunque luogo sulla terra ferma, sia prima che dopo l'imbarco o durante il rimbarco; da pioggia, da inondazioni, da spruzzo di marosi, da umidità, da trasudamento, da colaggio, da spicci, da rotture, da raggine, da olio, da effetti del clima, dai segni dei ganci e da rotture causate dagli stessi per insufficiente resistenza dell'imballaggio; dallo stivaggio, da pressione del carico, da contatto con altra merce, da macchie, da emanazioni, da evaporazioni del carico; da disinfezioni; dal deperimento di generi soggetti a facile deperimento; da rottura di pani, sbarre e lastre di metallo fuso, di oggetti fragili, di vetro, di terracotta, di marmo; da topi, da insetti e da vermi; da calore, da vicinanza alle macchine, da fuga di vapore; da avarie nello scafo, nelle macchine, nelle caldaie, negli impianti ausiliari, frigoriferi, elettrici, nell'attrezzatura; da cattivo funzionamento dei verricelli; da urto, da incaglio, dall'arenamento, da naufragio, da difetti latenti nello scafo, macchine ed impianti accessori e da ogni rischio della navigazione o dipendente da caso fortuito o forza maggiore.

Art. 11. — La Società Armatrice non risponde dei danni e conseguenze derivanti da colpa, negligenza, imperizia, da errore, atti e fatti del Capitano, dell'Equipaggio, del pilota o di qualsiasi persona imbarcata, sia per tutto quanto si riferisce alla navigazione ed alle attribuzioni che la legge ed i regolamenti affidano alle predette persone, sia per tutto quanto concerne la gestione commerciale della nave, anche se compiuti dagli agenti, incaricati o dipendenti e da ogni altra persona dei cui atti la Società Armatrice possa essere chiamata a rispondere.

Art. 12. — Il Capitano e la Società Armatrice si riservano la facoltà di anticipare, ritardare le partenze, sopprimere scali, caricare e trasbordare in qualsiasi porto e tempo avanti e dopo la partenza, su altra nave della Compagnia o non, le merci, consegnate. Il Capitano e la Società Armatrice non assumono alcuna responsabilità pel caso che non si verifichi la coincidenza fra le navi della stessa Società Armatrice o di altri armatori, nè garantiscono il vuoto a bordo della nave di trasbordo ed in caso di mancanza di spazio o di causa qualsiasi che impedisca il trasbordo, durante l'attesa, le merci saranno sbarcate depositate, immagazzinate o a terra o su galleggianti, a rischio, pericolo e spese del ricevitore, il caricatore o ricevitore non avranno diritto di reclamo contro il Capitano e la Società Armatrice pel ritardo nei porti capolinea, di scalo, di destinazione e di trasbordo qualunque ne sia la durata e la causa. La rispedizione della merce sarà curata dagli agenti della Società Armatrice ma sempre a spese, rischio e pericolo della merce anche quando nella polizza non siavi espressa facoltà di trasbordo.

Art. 13. — In caso di quarantena, di blocco od interdizione in qualunque porto di trasbordo o di scarico, od in caso che l'entrata e la comunicazione con tali porti renda, o possa rendere soggetta la nave a misure quarantenarie a qualcuno dei porti susseguenti, in caso di avaria al piroscafo, per qualsiasi caso di forza maggiore, o se a giudizio del Capitano l'entrata in uno di quei porti di trasbordo o di scarico non possa essere effettuata senza rischio per la nave, o pericolo di esservi trattenuta oltre il tempo di fermata ordinariamente stabilito per detto scalo a motivo di cattivo tempo, risacca, malattia, guerra, scioperi, lookouts, dibattiti su questioni commerciali, crisi di lavoro abbia o no la Società Armatrice parte nell'avvenimento) o per disposizioni quarantenarie, il Capitano ha facoltà di scaricare la merce in magazzini, chiatte, pontoni ecc., o nel lazzaretto o in altro porto che possa considerarsi sicuro o di portarla con sè, di metterla a magazzino, di trasbordarla o di sbarcarla a destino nel viaggio di ritorno, a mezzo di altra o altre navi, a spese e rischio del caricatore e del ricevitore, e nel caso che lo scarico si effettui ad un porto qualunque che non sia quello di destino, oppure sia fatto al porto di destinazione con mezzi e modi che non siano quelli usuali, la ricevuta della Dogana, delle Autorità portuarie, dei chiattaiuoli o di altre persone che abbiano ricevuta la merce varrà nei confronti del caricatore e ricevitore, come un legale e pieno compimento degli obblighi del Capitano come per polizza. Qualora le merci in dipendenza delle cause copra accennate fossero sbarcate nel successivo porto più conveniente, ne sarà dato avviso ai destinatari se il nome di essi è conosciuto, oppure ai caricatori.

Art. 14. — Se per le esigenze del servizio o dell'itinerario od anche per difficoltà di dilistivaggio, le merci non fossero sbarcate allo scalo di destino, il Capitano potrà conservarle a bordo per consegnarle nel viaggio di ritorno, come potrà sbarcarle in uno scalo diverso, facendole proseguire al loro destino con altro piroscafo.

In questi casi nessun aumento di nolo graverà sulle merci, ma il caricatore ed il ricevitore rinunziano espressamente a qualunque pretesa di indennità per ritardo o per danni che eventualmente le cose caricate potessero ricevere, restando a loro rischio e pericolo la giacenza, il trasbordo e la prosecuzione delle merci.

Art. 15. — Avvenuta l'emissione della polizza, il possessore della stessa non avrà diritto di mutare il luogo di destinazione della merce e la Società Armatrice non sarà tenuta a riconoscere o ad accettare alcun cambiamento o sostituzione di destinatario se non venga regolarmente fatto colla cessione girata o tradizione della polizza a seconda che sia nominativa, all'ordine, od al portatore.

Art. 16. — Quando per qualsiasi causa le merci sono trasbordate su altra nave o poste su pontoni, chiatte, galleggianti, od in qualunque dock, magazzeno, presso privati od enti pubblici, o sulle banchine, tutti i rischi di qualunque natura gravano sul caricatore e ricevitore, restando soggetti a tutte le condizioni della polizza di carico, lettera di porto e ricevuta di deposito del successivo armatore, vettore, chiattaiuolo, magazziniere, ecc., essendo la responsabilità del Capitano e della Società Armatrice, in deroga al vincolo sociale, limitata e circoscritta al trasporto sul suo percorso e non potendo essere convenuta che per tutti accorsi durante il detto percorso. Per le merci trasbordate e depositate, le ricevute del nuovo consegnatario, vettore, chiattaiuolo, accettate dal Capitano o dagli Agenti della Società Armatrice faranno stato nei confronti dei portatori della polizza dei condizionamento e quantità dei colli ricevuti e consegnati.

Art. 17. — Il Capitano ha facoltà, senza incorrere in alcuna responsabilità, di entrare ed uscire dai porti, rade o fiumi, senza pilota pratico, di dovere dalle sue navi entrare e toccare qualunque porto non compreso nel suo itinerario, sia retrocedendo, che avanzando, secondo narri anche per operazioni commerciali, di rimorchiare e prestare assistenza ad altre navi ed il caricatore e ricevitore rinunciando ad ogni reclamo e diritto al riguardo.

Art. 18. — Il Capitano è dispensato dal far procedere alla constatazione dello stivaggio negli scali d'imbarco, di trasbordo e destinazione; ma qualora credesse opportuna una tale constatazione, potrà farla per mezzo di uno stivatore giurato o perito marittimo, senza formalità giudiziaria e senza obbligo dell'intervento del caricatore o ricevitore.

Art. 19 — In ogni caso di quarantena sono a carico esclusivo della merce le spese di sbarco, di trasbordo nei luoghi di contumacia, nonchè tutti i rischi della stazione e reimbarco. Se dopo effettuato lo sbarco delle cose caricate, il piroscafo venisse liberato dalla quarantena senza poter reimbarcare per effetto delle disposizioni sanitarie, spetterà al caricatore ed al ricevitore provvedere all'invio a destino, restando adempiuto pel Capitano ogni obbligo come per polizza.

Art. 20. — Il nolo e qualunque altra somma posta a carico della merce in relazione e dipendenza della polizza dev'essere pagato anticipatamente alla consegna delle merce, salvo convenzione in contrario, che dovrà risultare espressamente in polizza.

Il nolo è dovuto e guadagnato per intero, sia che il piroscafo arrivi a destinazione, sia che si perda durante il viaggio, sia che per forza maggiore, debba far ritorno prima di giungere a destino, sia che per incaglio, collisione od evento qualsiasi di forza maggiore sbarchi la merce in porto intermedio — ed anche in caso di perdita totale, parziale od avaria della merce.

Quando il nolo è pagabile a destino dev'essere corrisposto il giorno dell'arrivo del piroscafo, nella moneta stipulata in polizza o nella moneta del paese di destino al corso del cambio a vista più elevato di detto giorno.

La Società Armatrice non assume responsabilità per le somme assegnate se non a concorrenza dell'incasso effettivo dei loro importo e conserva in ogni caso il suo diritto verso il caricatore.

Il rimborso al caricatore non si effettuerà che dopo ricevuto avviso d'incasso da parte dell'Agenzia al luogo di destino.

Art. 21. — Il Capitano e la Società Armatrice consegnano le cose caricate contro la consegna della polizza quitanzata e non sono obbligati a verificare l'autenticità delle firme del caricatore, dei giranti, del portatore della polizza o del destinatario, nè la sua identità personale. La responsabilità del Capitano e della Società Armatrice cessano del pari, anche senza la restituzione della polizza di carico, quando per legge o regolamento, od uso del porto di destino o di scarico, la consegna della merce s'effettui agli interessati da parte delle Autorità doganali, portuarie — o la Compagnia ed il Capitano siano comunque obbligati a consegnare e depositare la merce a detti enti od Autorità.

Art. 22. — In nessun caso il ricevitore avrà diritto di abbandonare alla Società Armatrice le cose caricate perchè avariate danneggiate od altrimenti deprezzate anche per perdita parziale dei colli o ritardo della consegna.

Art. 23. — Il Capitano e la Società armatrice hanno diritto di ritenzione e di pegno sulle merci e conseguentemente qualora la persona cui sono dirette le cose caricate non si conosca, o non si presenti, o rifiuti di riceverle, o di pagare quanto dovuto il Capitano e la Società Armatrice hanno facoltà di farle vendere, a mezzo di pubblici mediatori, senza autorizzazione giudiziale fino a concorrenza del quantitativo necessario per il pagamento integrale d'ogni somma per qualunque titolo gravante sulla merce, dovuta dai caricatori consegnatari, e se il ricavo non raggiungesse l'importo dovuto, tanto il caricatore, quanto il ricevitore dovranno coprire il saldo.

Art. 24. — Quando le cose caricate siano imbarcate con più destinazioni, l'opzione dovrà esercitarsi prima dell'arrivo del piroscafo nel primo porto; in difetto le stesse proseguiranno per l'ultima destinazione. In ogni caso lo sbarco sarà effettuato in un solo porto per tutte le cose caricate e l'opzione non potrà essere esercitata che dal caricatore della polizza.

Art. 25. — Se durante la stagione d'inverno le merci sono scaricate in uno dei Docks sprovvisto di apparecchio per riscaldamento e le stesse non sono ritirate entro 3 giorni da quello in cui il vapore è stato registrato presso la dogana, una tassa di $\frac{1}{2}$ di cent. di $ (cinti [pitti] per cassa e per giorno sarà imposta su tutte le casse non ancora asportate (sempre eccettuati gli incidenti al macchinario, ecc.)

Art. 26. — Appena il piroscafo è pronto a scaricare la merce su descritta, od una parte di essa, i ricevitori della medesima hanno il dovere di essere pronti a riceverla lungo la nave sul Dock o dove il piroscafo si trova ormeggiato per scaricare, o in chiatte provviste con numero di uomini sufficiente a ricevere le merci nelle stesse ed in mancanza di quanto sopra il Capitano o l'Agente del piroscafo od il Collettore del Porto di scarica, sono autorizzati di far entrare le merce in Dogana, e di sbarcarla, immagazzinarla o depositarla nelle chiatte senza avviso od a rischio e spese del Consegnatario della stessa. Il Collettore del Porto di discarica resta autorizzato di rilasciare un Ordine Generale per fare scaricare immediatamente dopo che il vapore ha completato le pratiche in Dogana.

Art. 27. — Le eventuali spese doganali e di giacenza a New York saranno a carico dei ricevitori.

Art. 28. — Ogni reclamo per avarie o mancanze od altro inerente alla presente polizza, dovrà essere, sotto pena di decadenza, proposto per iscritto alla Società Armatrice prima del ritiro della merce ed entro un mese dall'arrivo del piroscafo. Nessuna domanda di risarcimento per avaria, perdita, sarà ammessa senza che sia intervenuto l'accertamento in contraddittorio col Capitano o coll'Agente della Società Armatrice.

La Società Armatrice per le eventuali ricerche avrà un termine utile di sei mesi dalla data dell'arrivo prestabilito dall'itinerario del piroscafo, e qualora entro detto tempo effettui la consegna, il ricevitore non avrà alcun diritto a reclamo per ritardata consegna, avarie od altro. Passato il detto periodo il collo e le merci s'intenderanno definitivamente smarrite.

In relazione agli art. 928 cod. comm. 2125 cod. civ. resta convenuto che l'interruzione della prescrizione non s'effettuerà che per domanda giudiziale proposta davanti le competenti Autorità di Genova.

Art. 29. — In caso di ritardi dei quali la Società Armatrice comunque possa essere tenuta responsabile, l'indennizzo da corrispondersi al caricatore e destinatario non potrà mai superare l'ammontare del nolo percepito pel caso percorso.

Art. 30. — Se per effetto di stracciamento, rottura od altra causa, una parte della merce venisse ad uscire dai sacchi, casse od altri ricipienti, od a sconcrersi nella nave, il Capitano farà raccogliere nella stiva le quantità ivi esistenti e ricostituire possibilmente i colli, fino al compimento del numero, senza che si possa pretendere indennità per mancanza di peso, alterazione di qualità, mancanza o differenza di marche, numeri, ecc.

Art. 31. — La Società Armatrice in caso d'avaria o perdita della quale debba rispondere, sarà tenuta a pagare soltanto in ragione del valore reale ed intrinseco della merce al porto di caricazione, risultante da fattura d'origine od accertato da relazione di perito giurato, escluso ogni risarcimento di danni, rimborsi di multe, di spese, di diritti doganali.

Se il valore dichiarato nella polizza risulta inferiore a quello accertato colla fattura o colla perizia, la Società Armatrice rimborserà il minor valore dichiarato. Per gli effetti di valore o classificati come tali in base alle tariffe della Società Armatrice, la stessa sarà tenuta solo a pagare in ragione del valore in base a cui fu riscossa la sopratassa di nolo.

In caso di perdita di colli o casse d'effetti d'uso e simili, senza valore dichiarato in polizza, la responsabilità della Società Armatrice è limitata ad un massimo di L. 100 per ogni collo o cassa.

Per le merci caricate alla rinfusa non sarà ammessa veruna pretesa per deficenza di misura o di peso a meno che il Capitano abbia riconosciuto il peso e la misura ed espressamente lo abbia dichiarato per iscritto sulla polizza e sempre che la deficenza ecceda il calo naturale della merce, esclusi sempre i casi d'avaria particolare e generale.

Art. 32. — In caso di avaria comune il regolamento sarà fatto a Genova a richiesta della Società Armatrice, in via amichevole da due liquidatori scelti tra i Ragionieri inscritti nel Collegio della Provincia di Genova e nominati dalla Società Armatrice per l'espresso incarico che il caricatore per se e suoi aventi causa, fino da ora alla stessa conferisce, rinunziando il caricatore ed il ricevitore ad ogni opposizione al riguardo.

I ricevitori tutti s'obbligano a versare presso la Società Armatrice o sua Agenzia la somma che sarà richiesta dalla medesima a garanzia del contributo che ad essi possa spettare pel regolamento d'avaria. Effettuando tale versamento, corrispondendo il pagamento del nolo e d'ogni altra somma a carico della merce, e firmando la convenzione come sopra pel regolamento d'Avaria Generale, potranno effettuare il ritiro della merce.

La somma stabilita a garanzia del contributo d'avaria non sarà soggetta a contestazione e dovrà essere immediatamente versata, salvo e fermo il diritto di ritenzione e di pegno sulle merci a favore della Società Armatrice come per l'art. 23.

I ricevitori dovranno, sotto pena di decadenza, presentare entro sei mesi dal giorno dell'arrivo prestabilito dall'itinerario del piroscafo, i loro reclami ai liquidatori od alla Società Armatrice.

Art. 33. — Qualunque azione giudiziaria che il caricatore, il ricevitore o loro aventi causa, intendano proporre contro il Capitano e la Società Armatrice in relazione e dipendenza della polizza di carico, dovrà essere promossa innanzi alla Autorità giudiziaria di Genova, derogandosi espressamente alla competenza territoriale di qualsiasi Autorità giudiziaria, anche in dipendenza di connessione di causa.

Art. 34. — Per tutto ciò che non è disciplinato e previsto dal presente contratto di trasporto, vigono le disposizioni del Codice di commercio Italiano.

Art 35. — La consegna della merce a bordo implica l'accettazione da parte di tutti gli interessati dei patti e condizioni che precedono, quand'anche la polizza di carico non sia firmata dal caricatore.

Il Caricatore **Il Capitano**

Rilasciato al Caricatore N. 1 *polizze originali.*

Libellant's Exhibit 13.

3985

(PHOTOSTAT)

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Libellant's Exhibit 14.

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(PHOTOSTAT—both sides)

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3990

Libellants Ex. 14

Ex L-14 Fit 2-7-23 GCB

FRATELLI BONANNO — MESSINA — AGENTS — COSULICH

Società Triestina di Navigazione

TRIESTE

AGENTS:

Phelps Bros & Co. — New-York & Boston.
The Terminal Shipping Company. — Baltimore.
Strachan Shipping Company — Savannah, Brunswick & Fernandina.
Gulf Transit Company. — Pensacola.
A. H. Miller & Co. Inc. — New-Orleans.
Daniel Ripley & Co. — Galveston.

OUTWARD.

No.

Regular Fast Service of Steamers between the Adriatic, Mediterranean, North, Central and South America.

Shipped in apparent good order and condition by Ferd. Baller & C. in and upon the Italian Steamship called the Lucia now in Port in Master for the present voyage, or whoever else may go as Master in the said Ship, now lying in the port of Messina and bound for NEW YORK

but with liberty, either before or after proceeding towards that port, to proceed to and stay at any ports or places whatsoever (although in a direction contrary to, or, out of, or beyond the route to said port of discharge), once or oftener, in any order, backwards or forwards for the purpose of receiving and/or delivering coals, cargo or passengers, or for any other purpose, and all such ports, places and sailings shall be deemed within the intended voyage. With liberty also to sail with or without pilots, to tow and assist vessels in all situations, to deviate for the purpose of saving life or property, to carry goods of all kinds, dangerous or otherwise under or upon deck; and to tranship this or any part of the cargo by steamer or steamers when this steamer's responsibility shall cease; the following packages, said to contain lawful merchandise as hereinafter specified;

C. A.
P.
2855/3472
Ferd Baller & Co
Messina

(340) three hundred and Forty Casks Citrate of Lime K 23256

STEAMER FILLING UP ONLY ON HER WAY WESTWARD TO NEWYORK

said to be marked and numbered as per margin, weight, gauge, quantity, contents, condition, value and value unknown, and to be delivered in the like good order and condition from the steamer's dock where steamer's [illegible] at or near thereto as she may safely get, always afloat, unto NEW YORK or to his or their assigns. Freight, primage and charges for the said goods being paid [illegible] at the rate of [illegible] per [illegible] Shipper. Freight, etc. to be paid in the aggregate [illegible] Bills of Lading, and not to be refunded [illegible] goods or the part of discharge at the [illegible] the Custom House. Settlement to [illegible] goods [illegible] Bills of Lading [illegible] without any allowance of weight or discount, and both Shipper and Consignee and holder of the Bill of Lading remain liable for the Freight, Primage and Charges on the entire quantity of goods [illegible] shipped, whether delivered in whole or in part, stored or uninsured.

In accepting this Bill of Lading, the Shipper, Holder and Consignee of the goods, and the Holder of the Bill of Lading agree to be bound by all its stipulations, exceptions and conditions, whether written, printed or stamped on this or the other side, as if they were all signed by such Shipper, Holder, Consignee or Holder.

In witness whereof, the Master or Agent of the said vessel has affirmed to [illegible] Bills of Lading, all of this tenor and date, one of which being accomplished, the others to stand void.

Dated at Messina the 30 day of [illegible]

Master

All expenses caused by quarantine to be paid by Consignee of goods.

Agents at Messina for Società Triestina di Navigazione Trieste

Rec'd [illegible]
Allow 406 19 /—

[illegible] 19 /—

Libellants Ex. 14
(Back)

CONDITION OF THIS BILL OF LADING.

IT IS MUTUALLY AGREED that the carrier shall have liberty to convey goods in craft and or lighters to and from the steamer at the risk of the owners of the goods: and in case the steamer shall put into a port of refuge, or be prevented from any cause from proceeding in the ordinary course of her voyage, to tranship the goods to their destination by any other steamer: that the carrier shall not be liable for loss or damage occasioned by fire or explosion from any cause or wheresoever occurring: by barratry of the Master or crew: by enemies, pirates, robbers, or thieves: by arrest or restraint of princes, rulers or people, revolutions, riots, strikes, lock outs, stoppage of labor, labor disputes or labor disturbances of any kind: by bursting of boilers, breakage of shaft, or the consequences of any damage to or defect in boilers or machinery, or any latent defect in hull machinery or appurtenances, or unseaworthiness of the steamer, whether existing at time of shipment, or beginning of voyage, provided the owners have exercised due diligence to make steamer seaworthy: that the carrier shall not be liable for loss or damage occasioned by causes beyond his control, by the perils of seas, or other waters, by collisions, stranding, jettison, or other accidents of navigation of whatsoever kind, or any errors of navigation or management (even when occasioned by the wrongful act, default, negligence or error in judgement of the pilot, master, mariners, stevedores' or other servants of the steamship owners, dock, graving dock, harbour or other authorities or their representatives, not resulting, however, in any case from want of due diligence by the owners of the steamer or any of them, or by the ship's Husband or Manager): that the carrier shall not be liable for loss or damage occasioned by heating, frost, decay, putrefaction, rust, sweat, change of character, rain, spray, drainage, breakage, leakage, loss of contents, vermin, or by explosion of any goods, whether shipped with or without disclosure of their nature, or any loss or damage arising from the nature of the goods or insufficiency of wrappers or packages, or damage arising from other goods by stowage or contact therewith, or through leakage, smell or evaporation therefrom, provided due diligence has been used in stowage of the cargo: nor for damage during inland carriage: nor for obliteration, errors, insufficiency or absence of marks, countermarks, numbers, address or description: nor for risk of craft, hulk or transhipment: nor for any loss or damage caused by the prolongation of the voyage, and that the carriers shall not be concluded as to correctness of statements herein of quality, quantity, gauge, contents, weight or value: also that the steamer is warranted seaworthy only to the extent that the owner shall exercise due diligence to make it so.

This contract shall be governed by the law of the flag of the ship carrying the goods. General average payable according to York Antwerp Rules, 1890.

Hereby consignees bind themselves to pay — even by deposit in advance, as estimated at port of destination on signing the average bond — such contribution, as will be apportioned by the average statement, upon the value of the goods received by them.

If the owner of the ship shall have exercised due diligence to make said ship in all respects seaworthy, and properly manned, equipped and supplied, it is hereby agreed that in case of danger, damage or disaster resulting from fault or negligence of the pilot, master or crew, in the navigation or management of the ship, or from latent or other defects, or unseaworthiness of the ship, whether existing at time of shipment or at the beginning of the voyage, but not discoverable by due diligence, the consignees or owners of the cargo shall not be exempted from liability for contribution in General Average, or for any special charges incurred, but with the Shipowner, shall contribute in General Average, and shall pay such special charges, as if such danger, damage or disaster had not resulted from such fault, negligence, latent or other defect or unseaworthiness.

IT IS ALSO MUTUALLY AGREED that the carrier shall not be responsible for gold or silver, manufactured, or unmanufactured, or in shape of coin, plated articles, documents, glass, china, jewellery, precious stones, trinkets, watches, clocks, time pieces, invoices, bills, bank notes of any country, orders, notes or securities for payment of money, stamps, maps, writings, title-deeds, paintings engravings, pictures, statuary, silk, furs, lace cashmere, manufactured, or unmanufactured made up into clothes, or otherwise contained in any parcel or package, shipped under a Bill of Lading beyond Five hundred Lire Italian Money, per package unless the value thereof be therein expressed and extra freight, as may be agreed, paid thereon.

1. — ALSO, that shippers shall be liable for any loss or damage to steamer or cargo, caused by inflammable, explosive, or dangerous goods shipped without full disclosure of their nature, whether such shipper be Principal or Agent: and such goods may be thrown overboard or destroyed at any time without compensation.

2. — ALSO, that the value of each package receipted for as above does not exceed the sum of Five hundred Lire Italian Money, unless otherwise stated herein, on which basis the rate of freight is adjusted.

3. — ALSO, that the carrier shall have a lien and right of sale by Public Auction over the goods for all freights, primages and charges, and also for all fines or damages which the steamer or cargo may incur or suffer by reason of the illegal, incorrect or insufficient marking, numbering or addressing of packages or description of their contents: and in the event of the proceeds of such sale failing to cover freights, primages and charges, fines or damages, the carrier shall be entitled to recover the remainder from the shipper, owner or consignee of the goods.

4. — ALSO, that if the steamer is prevented by Quarantine from reaching her destination, or making due delivery of the goods, or is detained at Quarantine, the goods may be forthwith without previous notice discharged into depôt, lazaretto, hulk, craft or lighter at the expense and risk of shipper, owner or consignee, and such discharge shall be deemed a full and final delivery of the goods, all risk, responsibility and expense of the carrier therefore ending as soon as the goods are delivered from the steamer's tackle, and all expenses thereby or thereafter incurred, and all increased cost of such delivery, shall be paid by shipper, owner or consignee, the carrier retaining a lien on the goods therefore; but should the vessel or goods not be admitted, or such discharge be impracticable, or in the master's opinion inexpedient, and in case of blockade or interdict of the port of discharge, or if without such blockade or interdict, the entering of the port of discharge should be considered unsafe by reason of war, disturbances or should the steamer be unable to discharge her cargo on account of strike or lock-out, the steamer may forthwith, without previous notice, proceed to the nearest safe port, or at the master's option to the nearest safe port to which the steamer is bound, at the expense and risk of the shipper, owner or consignee, and there land the goods as if at the original port of discharge, at the expense and risk of the shipper, owner or consignee, paying freight from the original port of discharge, and the carrier retaining a lien on the goods therefore and for all costs, charges, and expenses incurred, and for all increased cost of delivery.

5. — ALSO, that the steamship owner shall not be liable for any loss, detriment or damage to any goods capable of being covered by insurance, nor for any claim, however arising, of which notice is not given before removal of the goods, nor any claim for damages to, or loss or detention of, goods when the damage is done, or loss or detention occurs, while the goods are not in the actual custody of the Shipowner, nor in an case for more than the declared or invoice, value of the goods whichever shall be least.

6. — ALSO, that the steamer may commence discharging immediately on arrival and discharge continuously any custom of the port to the contrary notwithstanding. Magazzitis and or sighting and/or similar goods to be received by consignees day or night as fast as steamer delivers. Sulphur to be discharged into lighters which consignees are to furnish as required by the steamer, and to be received day and night as steamer delivers. The collector of Customs of the port of discharge being hereby authorised to grant a general order for discharge immediately on arrival. And if the goods be not taken from the steamer by the Consignee directly they come to hand in unloading the steamer, the Master or the Steamer's Agent to be at liberty to enter and land the goods, or put them into craft or store at the owner's risk and expense, when the goods shall be deemed delivered and steamer's responsibility ended, but the steamer and carrier to have a lien on such goods until the payment of all costs and charges incurred.

7. — ALSO, that full freight is payable on damaged or unsound goods, shipper and owner of same remaining liable for any freight not collected at port of discharge.

8. — ALSO, that any duty, tax or impost, of whatever nature, levied upon the steamer by the authorities at port of discharge for, or in connection with, the goods shipped hereunder shall be paid by the consignees thereof before delivery.

9. — ALSO, that the Receiver of the goods shall pay the Spanish Transport Navigation Dues, which payment is to be made, besides the amount of freight, against delivery of the goods.

10. — ALSO, that in event of weight, measurement, gauge or number being understated, the cost of ascertaining correct weight, measurement, gauge or number to be a charge upon the goods, and freight to be paid accordingly.

11. — ALSO, that Bonus upon the freight will be claimed on all goods incorrectly declared.

12. — ALSO, that the only condition on which Glass, Earthenware, China, Cutlery and other brittle goods of a like description will be carried, is that neither the shipowner nor his servants and agents, shall be liable for any breakage, which may occur, whether arising from negligence of shipowners servants, or from any cause whatever.

13. — ALSO, that steamer or on quay or wharf awaiting shipment or delivery to at shipper's or consignee's sole risk of loss or damage not happening through the fault or negligence of the Owners, Agents or Manager of the steamer, any custom of the port to the contrary notwithstanding.

14. — ALSO, that in case of option granted to the shipper, between two ports of discharge, the option shall be determined and immediate notice given on arrival of the steamer at the first port, otherwise the goods must be landed there, or at second port at steamer's option.

15. — ALSO, that this Bill of Lading duly endorsed to be given up to steamer's Consignee in exchange for delivery order.

16. — ALSO, that parcels for different consignees collected or made up in single packages addressed to one consignee, pay full freight on each parcel.

17. — ALSO, owing to conditions of war or hostilities existing or threatened this shipment is accepted at the sole risk of the owners thereof of arrest, restraint, capture, seizure, detention or destruction of any kind by any Power; and the carrier and its representatives are privileged in its or their absolute discretion, if deemed advisable for the protection of the vessel or any cargo or to avoid delay, damage, loss or other disadvantage or danger, either with or without proceeding to or inward the port of discharge or entering or attempting to enter or discharge the goods there, and whether such entry or discharge be permitted or not, to proceed to any other port or ports or return to the port of shipment, once or oftener in any order or rotation, retaining the goods on board or discharging the same at risk and expense of the owners thereof at any such port or ports at the first or any subsequent call and full bill of Lading freight, together with extra compensation for additional transportation and all other charges shall be paid by shipper, consignee and/or assignee, and shall be a lien on the goods.

18. — ALSO, that if the property covered by this Bill of Lading is to be forwarded, the forwarding may be by any customary conveyance, and shall be at the risk of the owner of the goods, including all cargo while awaiting shipment at transhipping point, on wharf, in warehouse or otherwise, but at the steamer's expense, unless otherwise specified, and all liability of the herein named steamer shall terminate on due delivery to connecting carrier or his agent, and this shipment shall be subject to all the clauses and conditions contained in the Bill of Lading in use by the carrier or carriers at transhipping point, and the goods shall be considered delivered to the steamer for transportation hereunder upon the receipt by the steamer or his agent of the goods at the aforesaid transhipping point. All charges for transhipping, forwarding, lighterage or wharfage subsequent to delivery at transhipping point are to be furnished by, or at the expense of, shipper or consignee, and should the goods be ordered to a port other than the original port of discharge, the steamer or her agent has the right to deliver them at the nearest open accessible port, and freight shall be payable on full discharge which is agreed as a full delivery under this Bill of Lading.

19. — IT IS MUTUALLY AGREED that in case of war or other interruption of the customary means of conveyance, the goods are in any way detained on the voyage or are prevented from being delivered at destination, they may be stored at any available and convenient port, or forwarded to destination by other available and convenient means of conveyance, and if necessary may be kept in ground, hulk or craft at the port of transhipment, or forwarded to any other safely available and convenient port, in all or either of which cases the goods shall at all times be liable and subject to lien for any expenses incurred, and shall be always at the risk of the shipper or consignee of the goods.

20. — If during the winter season, any Green Fruit carried on this Bill of Lading is discharged at a dock fitted with heating machinery, a charge per package per day, will be levied on all packages, according to machinery, etc., always excepted.

21. — Cargo is to be received at Brooklyn, Hoboken or Jersey City if steamer discharges there.

22. — All expenses incurred for Coops, or and gathering of Loose Cargo and covering of Bags shall be borne by Consignees.

23 — In the event of Goods not being found on arrival at port of destination, the same to be returned as soon as found by the first steamer of the Line, or sooner by the owners will not be responsible for any loss or damage arising therefrom and all such overcarried goods to stand at Merchants' risk until their final delivery at the port of destination.

„COSULICH"

Società Triestina di Navigazione

TRIESTE

Libellant's Exhibit 15.

3991

WESTERN UNION TELEGRAM

HT 2.30 P. M. May 7, 1920

Commander, Steamship *Willdomino*
Radio via New London

Arriving Marseilles accept orders for loading return cargo from Wax and Vitalle Genoa acknowledge this message.

WILSHIPCO

Charge
Wms. S. S. Co.

3992

COMMERCIAL CABLEGRAM

Received at 20 Broad Street May 23 1920

RVAW Y843 Lpool 7

Wilshipco NYK.
Willdomino udtik awdde odbajivurj vinvisch

ESPLEN

3993

Willdomino remit by wire £4000 for disbursements early next week.

(Stamp) 2963

Libellant's Exhibit 15.

3994 COMMERCIAL CABLEGRAM

Received at 20 Broad Street May 29 1920

Y753 RVA W Lpool 17

Wilshipco NY

Willdomino idlanemzan goujonner notamie travaux industries ricomporre bloemtros beslaande cremieux bloemkelk naphtase coebus pijpbloem

ESPLEN

3995 *Willdomino* arrived Marseilles (France) discharge commences May 29th following tonnage will be required industries telegraph regarding appointments agency for the steamer Cremieux have been appointed are looking after ship's business we trust this is in order.

(Stamp) 240

COMMERCIAL CABLEGRAM

Received at 20 Broad Street May 31 1920

3996 JH Y92 RK Lpool 12

Wilshipco NY

Willdomino goujon notamie ocsijojrij rimondollo vaccinacao wax rinfreno gonoplax

ESPLEN

Willdomino discharge commenced 29th May expect to finish 5th June do not remit we understand (that) wax will remit cash for ordinary disbursements.

(Stamp) 1159

Libellant's Exhibit 15.

COMMERCIAL CABLEGRAM 3997

Received at 20 Broad Street June 2, 1920

5 MG Y 595 Lpool 20

Wilshipco NY

Willdomino onnil iryad ivvikojreh waxultig rimmollava odglaemzan odbajivurj torfwagen giocoforza uziks ultig udtse anjre amclo odeks cremieux freres emzan ivuhy or rincospora

ESPLEN

3998

Willdomino may complete discharge June 4th wax telegraph cannot remit freight Marseilles (France) for disbursements in time to dispatch steamer will you telegraph remittance 160,000 5,000 francs Cremieux Freres Marseilles (France) direct or shall we remit

---

COMMERCIAL CABLEGRAM

HT 11:40 AM NY June 3rd, 1920.

Esplen
Liverpool. 3999

Willdomino oycekowkav emzanivurj rindsleder Toyou.

WILSHIPCO.

Charge Williams S. S. Co.

Willdomino please pay Marseilles (France) disbursements we will remit to you.

Libellant's Exhibit 15.

4000 WESTERN UNION CABLEGRAM

Received at 16 Broad Street, New York
PZ1174FK

Radio N*Wildomino* Marseilles B964/5 11
Wilshipco NYK
Willdomino left Marseille for Palermo 8 A. M.

CAPTAIN.

(Stamp) 1920 Jun 5 PM 11 36
(Stamp) 2604 5
4001 (Stamp) Received Jun 7 1920 Williams S. S. Co., Inc.

COMMERCIAL CABLEGRAM

Received at 20 Broad Street Jun 7 1920

HO Y3 Lpool 5

Wilshipco NY

Willdomino ugawz emzan

4002 ESPLEN

Willdomino sailed Saturday AM Marseilles (France).

ESPLEN.

(Stamp) 363

Libellant's Exhibit 15.

CLAIMANT'S EXHIBIT F. 4003

TELEGRAM

The Eastern Telegraph Co., Ltd., Gibraltar

New York, 15th June, 1920.

To Master Steamer *Wildomino*
Care Agamemnon Gibraltar

Your coal requirements excessive cost of bunkers Gibraltar very high make accurate measurement remaining bunkers if not enough to make North Sydney take only enough to reach there 4004
cut down consumption in every way if fuel runs short reaching coast cut out one boiler

WILSHIPCO.

WESTERN UNION TELEGRAM

1920 June 27 AM 8 24
Received at Produce Exchange N Y
C40B 3

Halifax NS 830A 27

Williams Steamship Co 4005
44 Whitehall St New York NY

Willdomino arrived three o'clock Tuesday morning stop has about seventeen feet water in forepeak and number one hold stop holding survey this morning and will report result stop fear vessel badly damaged forward

PICKFORD AND BLACK LIMITED.

(Stamp) 1920 July 27 AM 8 08

Libellant's Exhibit 15.

4006 WESTERN UNION TELEGRAM

Received at Produce Exchange NY
1920 June 27 PM 4 11
D414B 146

Halifax NS 407P 27

Williams Steamship Co
44 Whitehall St New York NY

Willdomino have had diver survey bottom and found her seriously damaged stop the bottom is
4007 all gone under forepeak and the bottom and tank-top to the extent of about six feet is also gone under number one hold stop surveyors suggest ceiling hatches in number one hold and blowing the water out with compressed air which would enable her to proceed New York stop all the lemons and part of the cork would have to be discharged from number two hold to enable bulk-head to be shored up and some cargo would be discharged from number one hold stop the delay would be about ten days stop will have every-thing in readiness to place before Captain Gil-bery on his arrival stop drydock not available for
4008 three weeks at least stop compressed air plant would have to go New York with her stop the cargo discharged would be reloaded

PICKFORD AND BLACK LTD.

(Stamp) 1920 July 27 PM 3 54
(Stamp) 1400

Libellant's Exhibit 15.

WESTERN UNION TELEGRAM 4009

Received at Produce Exchange N. Y.
1920 June 28 PM 3 30
K226B 26

Halifax N S 350P 28

Williams Steamship Co
44 Whitehall St New York NY

Reference my first telegram this is in keeping with underwriters surveyor stop surveyor insists towboat accompany ship New York will you arrange to have towboat sent Halifax

Gilboy. 4010

(Stamp) 1920 July 28 PM 3 15
(Stamp) 1291

WESTERN UNION TELEGRAM

Received at Produce Exchange NY
1920 June 28 PM 3 33
L189B 60

Halifax NS 350P 28

Williams Steamship Co Inc
44 Whitehall St New York NY

Ship at pier shifting cargo to afterholds also figure placing about six hundred tons sand on 4011
afterdeck to bring ship even keel this will take entire cargo and eliminate air proposition number one hold stop considered strength of number two bulkhead but will shore bulkhead and place one ten inch pump aboard as precaution in case bulkhead starts leaking stop ships bottom damaged two frames abaft number one bulkhead figure ship sailing Monday lemons look to be in good condition

GILBOY.

(Stamp) 1920 Jul 28 PM 3 21
(Stamp) 1274

Libellant's Exhibit 15.

4012 WESTERN UNION TELEGRAM

Received at Produce Exchange N Y
1920 June 28 PM 3 58
D405B 12

Halifax NS 4P 28

Williams Steamship Co Inc
44 Whitehall St New York NY

Arranging for towboat master of same must be pilot over Nantucket shoals

4013 GILBERY.

(Stamp) 1920 July 28 PM 3 35
(Stamp) 1357

WESTERN UNION TELEGRAM

Received at Produce Exchange
1920 Jun 29 PM 2
H210B 14

4014 Halifax NS 233P 29

Williams Steamship Co
44 Whitehall St New York NY
Send towboat to arrive Halifax Monday morning ship will be ready late Sunday night.

GILBOY.

(Stamp) 1920 July 29 PM 1 55
(Stamp) 1088

Libellant's Exhibit 15.

WESTERN UNION TELEGRAM 4015

Received at Cotton Exchange Building, New York

1920 June 30 PM 1 58
60B BBK 22
Produce Exchange N. Y.

Halifax NS 217P Jly 30 1920

Williams SS Co
44 Whitehall St New York N Y

Willdomino expected ready Monday morning stop will you open credit with Royal Bank Canada here for payment bills estimated seventeen thousand dollars 4016

PICKFORD AND BLACK
148P

(Stamp) 1043

WESTERN UNION TELEGRAM

Pad 12:10 PM NY June 31, 1920. 4017

Pickford & Black Ltd.
Halifax
Nova Scotia.

Willdomino have insured two hundred sixty six bales on deck.

WILLIAMS STEAMSHIP CO.

Charge

Libellant's Exhibit 15.

4018 WESTERN UNION TELEGRAM

Received at Produce Exchange N. Y.
1920 Jul 2 AM 1158
D224B 76

Halifax NS 1205P 2

Williams Steamship Co
44 Whitehall St New York NY

Willdomino ready tug has not arrived thick fog here bills in addition to regular port charges and so forth wharfage nine hundred stevedoreing seventeen hundred cooperage ninety Government tug
4019 *Lady Laurier* eleven hundred and seventy six ballast material shoring number two bulkhead forty two hundred about eight hundred and fifty tons cargo or eleven thousand two hundred nineteen packages taken off ship and restowed on ship recommend approval of bills wire action desire me to take

GILROY.

(Stamp) 1920 Aug 2 AM 11 42
(Stamp) 0755

4020 COMMERCIAL CABLEGRAM.

Received at 20 Broad Street Jul 5 1920

5FX Y30 Liverpool 12

Wilshipco NY

Willdomino ogbezulgos afinamos sbaraglia unfroojdit willpolo akymaakyit aklojakhof memorize

ESPLEN

Willdomino having survey Ponta Delgada (Azores) expected to sail tonight 5th July Willpolo 48-47 19-13 4th July.

(Stamp) 487

Libellant's Exhibit 15.

COMMERCIAL CABLEGRAM 4021

Received at 20 Broad Street Jul 12 1920
R3 V1

Ponta Delgada 11

Willshipco NY

Willdomino sailed from Azores tenth on LP Turbine.

BEEBY

(Stamp) 108

COMMERCIAL CABLEGRAM

4022

Received at 20 Broad Street, Jul 12 1920

GX 5 Y 76 Liverpool 9

Wilshipco New York

Willdomino ugboh erffe menae chmos bittaque ifubd awbbe atcek arcuc

ESPLEN

Willdomino sailed from Ponta Delgada Azores July 10th total amount bills £2607/9/3

(Stamp) 1584 4023

Libellant's Exhibit 15.

4024 WESTERN UNION TELEGRAM

Received at Produce Exchange N. Y.
1920 Jul 21 PM 11 15
F58Z 9 2 EX

CW North Sydney NS 1135A 22

Willshipco
New York

Arrived Sydney waiting instruction have radioed Halifax

BEELEY
4025 Care Kelly.

(Stamp) 1920 Jul 22 AM 10 52
(Stamp) 0674

WESTERN UNION TELEGRAM

July 22nd, 1920.

Captain Beebey
Care Kelly
North Sydney, N. S.

4026

Proceed Halifax immediately report to Pickford & Black for bunkers

WILSHIPCO.

Libellant's Exhibit 15.

WESTERN UNION TELEGRAM 4027

HT 5:00 PM NY July 22, 1920.

Pickford & Black
Halifax
Nova Scotia

Willdomino cargo perishable fruit already long delayed stop master reported eighty tons bunkers arrival North Sydney if necessary trifling additional quantity to reach Halifax cant you possibly arrange stop use your best judgment but avoid delay stop instruct master mail this office 4028
immediately Lisbon manifest.

WILLIAMS STEAMSHIP CO.

Charge

WESTERN UNION TELEGRAM

Received at Produce Exchange, N. Y.
1920 Jul 23 AM 11 33
D203B 27

Halifax NS 1145A 23

Williams Steamship Co Inc 4029
44 Whitehall St New York NY

Willdomino master mailing you from Sydney Lisbon manifest stop obtaining fifty tons coal bring him Halifax leaving Sydney this afternoon stop will hurry him away from here

PICKFORD AND BLACK LTD.

(Stamp) 1920 Jul 23 AM 11 15
(Stamp) 0753

Libellant's Exhibit 15.

4030 WESTERN UNION TELEGRAM

Received at Produce Exchange NY
1920 July 24 AM 9 47
A319B 20

Halifax NS 1006A 24

Williams Steamship Co Inc
44 Whitehall St New York NY

Reported *Willdomino* touched off Canso no particulars from master will telegraph you again as soon as we receive more information

4031 PICKFORD AND BLACK LTD.

(Stamp) 1920 Jul 24 AM 9 27
(Stamp) 0537

WESTERN UNION TELEGRAM

Received at Produce Exchange N. Y.
1920 Jul 24 P M 3 17
A659B 20

Halifax NS 325P 24

4032 Williams Steamship Co
44 White Hall St New York NY

Last word from *Willdomino* she was making for here having filled after ballast tanks to counterbalance water in forepeak

PICKFORD AND BLACK LTD.

(Stamp) 1920 July 24 PM 3 00
(Stamp) 1145
(Stamp) Received July 26 1920 Williams S. S. Co., Inc.

Libellant's Exhibit 15.

POSTAL TELEGRAM 4033

60 AV VX 10

Halifax NS Jul 25 1920

Williams Steamship Co

44 Whitehall St New York

Willdomino advises anchored off Canso will proceed when weather moderates

PICKFORD AND BLACK LTD
1247P

(Stamp) Jul 25 3 56 PM 20
(Stamp) 354 4034
(Stamp) Postal Telegraph-Cable Co. Produce Exchange &

WESTERN UNION TELEGRAM

Received at 195 Broadway, N Y.
1920 July 25 PM 7 46
A858 18

Halifax NS 715P 25

Williams SS Co
44 Whitehall St New York NY 4035

Willdomino asks for assitance stop secured Government tug *Lady Laurier* stop she is proceeding to her assistance.

PICKFORD AND BLACK.

(Stamp) 1920 Jul 25 PM 7 07
(Stamp) 2344
(Stamp) Received Jul 28 1920 Williams S. S. Co., Inc.

Libellant's Exhibit 15.

4036 POSTAL TELEGRAM

142 Rahl 18 915AM

Halifax NS July 26, 1920

Williams Steamship Co.
44 Whitehall St New York

Willdomino at two forty AM Minday was off Canso in convoy *Lady Laurier* making for Halifax about four knots.

PICKFORD AND BLACK LTD

4037 (Stamp) Postal Telegraph-Cable Co., N. Y. Produce Exchange &
(Stamp) CX July 26 9 33 AM 20
(Stamp) 418

WESTERN UNION TELEGRAM

Received at Produce Exchange N. Y.
1920 July 26 AM 9 51
K16B 7

Halifax NS 950A 26

4038 Williams Steamship Co
44 Whitehall St New York NY

Is *Willdomino* insured in England or United States

PICKFORD AND BLACK LTD.

(Stamp) 1920 Jul 26 AM 9 38
(Stamp) 0489

Libellant's Exhibit 15.

WESTERN UNION TELEGRAM 4039

PAD 10:15 AM NY July 28, 1920.

Pickford and Black Ltd.
Halifax
Nova Scotia.

Willdomino see arrangement scantlings drawing fourteen C on board which shows strong web on centre line at frame one hundred fortyone extending into number two hold this might assist bulkhead to hold air pressure without discharging cargo number two and shoring bulkhead stop number three bulkhead stiffened twelve inch channels we believe number two has stiffened eight inch channels. 4040

WILLIAMS STEAMSHIP CO.

Charge

WESTERN UNION TELEGRAM

PAD 10:45 AM NY July 28, 1920.

Pickford & Black Ltd.
Halifax 4041
Nova Scotia.

Referring our previous wire same is only suggestion for our Captain Gilboy to take up with underwriters surveyor as of course nothing must be done without their written consent.

WILLIAMS STEAMSHIP CO.

Charge

Libellant's Exhibit 15.

4042 WESTERN UNION TELEGRAM

Received at 2780 Broadway, New York
246FY FJO 17

Halifax NS July 29 1920

H Talbot
610 West 113 St New York

Potter Transportation Company eleven Broadway have tugboat *Humaconna* due at St Johns perhaps she would come for *Willdomino*

4043

GILBOY
515P

(Stamp) 230

WESTERN UNION TELEGRAM

114B1 8

Ax New York NY 932A July 29th

Wm D Gilboy
4044 Care Pickford and Black Ltd Halifax N S

State definitely date you want tugboat arrive Halifax.

WILLIAMS STEAMSHIP CO
11AM

Libellant's Exhibit 15.

WESTERN UNION TELEGRAM 4045

PAD 10:25 AM NY July 30, 1920.

Pickford & Black Ltd.
Halifax
Nova Scotia.

Advise Gilboy tug left Portland six PM Friday night for Halifax.

WILLIAMS STEAMSHIP CO.

Charge

WESTERN UNION TELEGRAM 4046

Pickford & Black
Halifax, Nova Scotia.

Advise Gilboy tug *Baldridge* leaves Portland for Halifax Saturday noon.

WILLIAMS STEAMSHIP CO., INC.

Charge

WESTERN UNION TELEGRAM

HT 4:05 PM NY July 30, 1920.

Pickford & Black Ltd. 4047
Halifax
Nova Scotia.

Advise Gilboy have arranged credit seventeen thousand dollars United States currency with Royal Bank here to be transferred Royal Bank Halifax for payment *Willdomino* bills in Canadian currency when same approved by Gilboy and yourselves.

WILLIAMS STEAMSHIP COMPANY

Charge

Libellant's Exhibit 15.

4048 WESTERN UNION TELEGRAM

Received at Produce Exchange NY
1920 July 31 AM 12 45
E24B 16

Halifax NS 932R 31

Williams Steamship Co Inc
44 Whitehall St New York N Y

There will be two hundred sixty six bales C deck of *Willdomino* will you insure

PICKFORD AND BLACK LTD.

4049 (Stamp) 1920 July 31 AM 8 44
(Stamp) 488

WESTERN UNION TELEGRAM

Received at 195 Broadway, N. Y.
C4B 47 NL

Halifax NS 30

Williams Steamship Co Inc
44 Whitehall St New York NY

4050 Understand about towboat from Portland *Willdomino* will sail Monday morning cargo all back on board also four hundred tons bunker coal ballast starting tomorrow all work to be finished Sunday trim before ballasting fifteen forward nineteen aft will ballast to raise forefoot as much as possible

GILBOY.

(Stamp) 1920 July 31 AM 1 47
(Stamp) 4724

Libellant's Exhibit 15.

WESTERN UNION TELEGRAM 4051

GTW 12 Noon July 31, 1920.

Captain William D. Gilboy
Care Pickford & Black Ltd.
Halifax
Nova Scotia

Willdomino do not accept any unreasonable bills you can arrange with our attorneys McInnes Jenks and Lovett thirtyfive Bedfordrow to put up bond for our account on any attempted extortion of bills its up to us to protect the underwriters stop ascertain quietly if *Lady Laurier* is making claim and how much act cautiously stop 4052
we must know now so as to arrange general average cargo bonds here.

WILLIAMS STEAMSHIP CO.

Charge

WESTERN UNION TELEGRAM

A5B 94 NL

Halifax NS 31

H. Talbot
610 West 113 St New York NY

Will be guided by your wire have not signed any bills same to before signature Monday then 4053
will advise you before any action is taken by me coal I understand to be paid New York remaining bills follows stevedore wharfage ballast and bill for shoring number two bulkshead Government tug *Lady Laurier* bill only for coal used wages subsistence and hawser to be about thirteen hundred dollars no other claim underwriters. Will also approve bills here tug *Baldridge* left Portland Saturday noon due Sunday Halifax *Willdomino* will sail Monday morning acknowledge care Halifax Hotel

GILBOY.

(Stamp) 1920 Aug 1 AM 1 00

Libellant's Exhibit 15.

4054 WESTERN UNION TELEGRAM

Received at Produce Exchange NY
1920 Aug 2 PM 2 25

J183B 9

Halifax NH 255P 2

Williams SS Co Inc
44 Whitehall St New York NY

Tug arrived two PM *Willdomino* will sail four PM

4055 GILROY.

(Stamp) 1920 Aug 2 PM 2 13
(Stamp) 1091

WESTERN UNION TELEGRAM

Received at Produce Exchange NY
1920 Aug 2 PM 4 39
K204B 20

Halifax NS 450P 2

4056 Williams SS Co Inc
44 Whitehall St New York NY

Tug *Baldridge* arrived this afternoon delayed by fog stop leaves in morning with *Willdomino* stop fog prevents her leaving tonight

PICKFORD AND BLACK LTD.

(Stamp) 1920 Aug 2 PM 4 26
(Stamp) 1474

Libellant's Exhibit 15.

WESTERN UNION TELEGRAM 4057

August 2 1920

Pickford & Black Limited
Halifax Nova Scotia

Advise Gilboy to O K bills as stated his wire even date after same have been approved by yourselves and underwriters surveyor stop no word from tug since Friday night leaving Portland stop secure copy tugs log Portland to Halifax

WILLIAMS STEAMSHIP COMPANY INC 4058

Charge Williams S. S. Co.

WESTERN UNION TELEGRAM

Received at Produce Exchange NY
1920 Aug 3 AM 10 37
H91B 9

Halifax NS 1045A 3

Williams SS Co Inc 4059
44 Whitehall St New York NY

Willdomino sailed ten this morning in tow tug *Baldridge*

GILBOY.

(Stamp) 1920 Aug 3 AM 10 22
(Stamp) 0621

Libellant's Exhibit 15.

4060 WESTERN UNION TELEGRAM

Received at Produce Exchange NY
1920 Aug 3 PM 3 27
J219B 43

Halifax NS 309P 3

Williams SS Co
44 Whitehall St New York NY

Willdomino have no advice remittance your telegram thirtieth leaving tonight have signed accounts total ten thousand seven hundred seventy two dollars sixty one cents will you advise Pick-
4061 ford as to whether you will remit or if they will draw on you reply promptly

GILBOY.

(Stamp) 1920 Aug 3 P M3 09
(Stamp) Received Aug 3 1920 Williams S. S. Co., Inc.
(Stamp) 1257

POSTAL TELEGRAM

151RA D 44 505PM
Halifax NS Aug 3

4062 Williams Steamship Co Inc
44 Whitehall St NYK

Royal Bank Canada has no advice remittance your telegram thirtieth stop Gilboy leaving tonight and has signed accounts for ten thousand seven hundred seventy two dollars sixty one cents will we draw or do you wish telegraph remittance for this amount please reply promptly.

PICKFORD AND BLACK LTD

(Stamp) Received Aug 3 1920 Williams S. S. Co., Inc.
(Stamp) Postal Telegraph Cable, Aug. 3, 1920.

Libellant's Exhibit 15.

WESTERN UNION TELEGRAM 4063

HT 5:07 PM NY August 3rd, 1920.

Pickford & Black Ltd.
Halifax
Nova Scotia.

On Friday thirtieth ultimo immediately receipt your telegraphic advices we deposited cash seventeen thousand dollars U S funds with Equitable Trust for immediate transfer to Royal Bank New York for telegraphic transfer Royal Bank Halifax stop we learned late second instant Royal Bank 4064
New York had neglected telegraph funds which they then agreed to do at once.

WILLIAMS STEAMSHIP CO.

Charge

WESTERN UNION TELEGRAM

HT 5:00 PM NY August 9, 1920.

Pickford & Black 4065
Halifax
Nova Scotia.

Willdomino arrived safely seventh instant docked this morning now discharging cargo.

WILLIAMS STEAMSHIP COMPANY.

Charge

Libellant's Exhibit 15.

4066 WESTERN UNION TELEGRAM

HT 10:10 AM NY August 10, 1920.

Pickford & Black
Halifax
Nova Scotia.

Willdomino seventeen thousand dollar credit US funds Royal Bank Halifax expires today please pay all bills instruct bank mail us balance today stop will honor your coal draft.

4067 WILLIAMS STEAMSHIP COMPANY.

Charge

POSTAL TELEGRAM

WDG 3.40 PM NY August 18, 1920.

Pickford & Black
Halifax
Nova Scotia

4068 Advise Maritime and Salvage we shipped pump and parts Saturday Halifax Steamer *Rosiland* also mailed billslading on same Saturday to Maritime and Salvage Company have approved towage bill and mailed you same this date advise if pump has arrived.

WILLIAMS STEAMSHIP COMPANY

Charge

Libellant's Exhibit 16.

(Copy) 4069

New York, October 6th, 1920.

Hon Collector of Customs,
Port of New York.

Sir:—

Referring to our letter of August 24th regarding Entry #17044 dated August 10th, 1920 covering shipment of 335 casks Citrate of Lime ex S/S Willdomino, beg to state that we have made 4070
a very careful examination of this damaged cargo, and find same to be absolutely worthless to us, hence we have abandoned this cargo, and we hereby make claim for refund of duty on this shipment. Thanking you for your kind attention in this matter, we remain,

Very truly yours,
Signed CHARLES PFIZER & CO. INC.
GEO. A. ANDERSON, Treas.

I, Geo. A. Anderson, Treasurer of Charles 4071
Pfizer & Co., Inc. certify that the above facts are true and correct.

Signed GEO. A. ANDERSON.

Sworn to before me this
6th day of October, 1920.

Signed. HERMAN SANDERS, JR.,
Notary Public.

Libellant's Exhibit 17.

4072

(MAP OF WORLD—Not incorporated in this record pursuant to stipulation printed at pages 1418-1419 of record.)

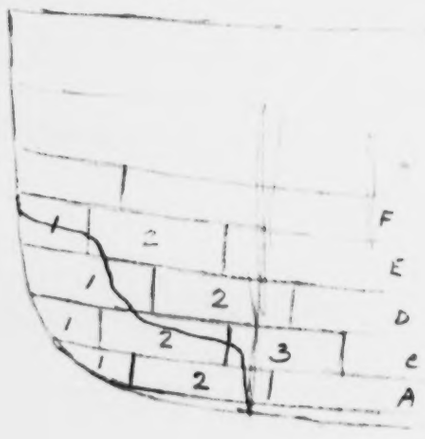
4073

4074

LIBELLANTS
EXHIBIT 18

Ex. L-18
Feb 27/23

S S WILLDOMINO



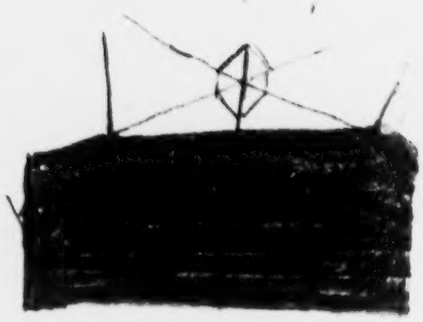
Plates affected

FOREFOOT PLATE

LOWER STEM BAR

PORT		STBD
A 1 & 2		A 1 & 2
C 1-2 & 3		C 1-2 & 3
D 1		D 1
E 1 & 2		E 1

Capacity of Vol



Gold
Grain Ales

Bale Measure

63373	cu ft
26517	
89890	Total

Libellant's Exhibit 18.

(PHOTOSTAT)

4075

4076

4077

In Admiralty—Memorandum.

4078

UNITED STATES DISTICT COURT,

DISTRICT OF NEW JERSEY.

CITRO CHEMICAL COMPANY OF AMERICA,
Libellant,

—against—

STEAMSHIP WILLDOMINO, her engines, boilers, etc.

CHARLES PFIZER & CO., INC.,
Libellant,

—against—

4079

STEAMSHIP WILLDOMINO, her engines, boilers, etc.

CONVOY STEAMSHIP CO., LTD., owner of the STEAMSHIP WILLDOMINO,
Cross-Libellant,

—against—

CHARLES PFIZER & CO., INC.,
Cross-Respondent.

MESSRS. BIGHAM, ENGLAR & JONES, Proctors for Libellants Pfizer & Co., and Citro Chemical Co. (JAMES D. CARPENTER, ESQ., of Counsel).

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MESSRS. HUNT, HILL & BETTS, Proctors for Claimant (owners of *Willdomino*).

LYNCH, *District Judge*:

These three admiralty causes were consolidated for the purpose of trial and this memorandum is intended to dispose of all of them.

In Admiralty—Memorandum.

The libellants, Citro Chemical Company of America, and Charles P. Pfizer & Company, caused to be placed aboard the *Willdomino* at Messina, Italy, in June, 1920, a large number of casks of citrate of lime, then in good order and condition, to be carried to New York. During the trip this citrate of lime became damaged and when it was tendered or delivered at New York it was not in good order and condition. The issue is whether the claimant is liable for the damages sustained by the libellants. 4081

The *Willdomino* was a steel vessel of approximately 9,000 tons, built in 1919, and purchased during that year by the present owner. It was propelled by turbines of approved type, which turbines were overhauled in January, 1920, under the supervision of competent engineers, about $30,000 being expended in the work. Thereafter, the vessel made a round trip to Danzig without turbine trouble. Upon her return to New York, she was placed in drydock at Brooklyn for the purpose of renewing certain leaky rivets in the hull of the vessel. After being discharged from the drydock and under certificate of Lloyds' surveyor, she proceeded to Norfolk and took aboard a cargo of coal which she carried to Marseilles without untoward incident. After discharging her cargo at Marseilles, she proceeded to Sicily, loading a cargo at Palermo and Messina. At Messina she took aboard the citrate of lime involved in this litigation, which was properly stowed in lower hold No. 1. On June 11, 1920, she sailed for New York, stopping at Gibraltar on June 16th, for additional bunkers (coal). From Gibraltar she proceeded to Lisbon, Portugal, and took aboard more cargo. While at Lis- 4082 4083

4084 bon, three of her engineers, her Second, Third and Fifth, obtained certificates, after medical examination, establishing that they were unable to proceed on the voyage, and the Captain of the *Willdomino* was obliged to sign them off. These three engineers had to be replaced before the ship could proceed. The Captain of the *Willdomino* consulted the British Consul (the *Willdomino* being under British registry) and made efforts to obtain British engineers at Lisbon, and although he offered bonuses, he was unable to obtain British men. The British Consul thereupon obtained two Portuguese engineers with proper
4085 certificates and instructed the Captain to sail with these men as Second and Third Engineers. The First Engineer and the Fourth Engineer, who had not signed off, were men of competence. On June 24th, the vessel left Lisbon, the First Engineer at the beginning of the voyage cooperating with the Second and Third Portuguese engineers in the use of the turbines until they became familiar therewith. On June 29th, engine trouble developed. The lubricating system failed to work due to some trouble with the oil pump. An investigation disclosed that the nut
4086 on the valve spindle in the forward oil pump had stripped off its threads so that it did not perform its function in opening the ports admitting steam to the piston, causing the pump to stop. This valve spindle was produced in court and examined by me. It is an exhibit in the case. The First Engineer in his testimony explains in detail the finding of this trouble, its difficulty of location, the effort to repair it, etc. After a period of three days temporary repairs were made, enabling the vessel to proceed under low pressure turbine. Operation under low pressure

required an increase in the supply of coal. After consultation, it was decided to put into Ponta Delgada, where the vessel arrived on July 4th. At that port a survey was held by two British masters appointed by the British Consul. The high pressure turbine which had been thrown out of commission could not be fixed at Ponta Delgada because there were no facilities for fixing it at that place. New thrust bearings were obtained and after the lubricating machine was overhauled and some coal and oil purchased, the vessel left that point on July 10, still proceeding on the low pressure turbine only. On July 15th, five days out of Ponta Delgada, the First Engineer and the Captain consulted regarding the situation and decided to put into Sydney (Nova Scotia) for coal, a recognized coaling port for vessels of the claimant. The vessel at the time was bearing on what is known as the Great Circle Course and the changing of her course to Sydney involved a deviation from the straight line to New York. She arrived at Sydney on July 22nd. A few hours before entering Sydney she received a wireless from her owners advising her to proceed to Halifax instead of Sydney to procure bunkers, as her owners had arranged with agents in Halifax for quick bunkering. The vessel was short of coal, however, and continued into Sydney, where she secured sufficient coal to take her to Halifax. Leaving Sydney on the night of July 23rd, she ran into a heavy fog. The master and all officers remained on deck throughout the night navigating her and setting her helm on a course which they believed to be about twenty miles off the coast. About 6:30 A. M., on the morning of the 24th, she struck something, causing an opening in her hull, and large quantities of water entered

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4090 hold No. 1, where the citrate of lime was stowed. Soundings within twenty minutes showed twenty feet of water in this hold, the citrate of lime being entirely covered. The vessel backed off from the object which it struck under its own power, but due to the large amount of water in No. 1 hold, was unmanageable, her propellers being up out of the water. The after-ballast tanks were thereupon filled with water, correcting the trim of the ship, and after the fog cleared the vessel proceeded towards Halifax under the convoy of a Canadian Government tug. She arrived at Halifax on July 27th. An inspection was at
4091 once made of the damage, by divers under the supervision of Lloyds, and the London Salvage Association, who stated that the damage was too great to be repaired by patch on the outside. The Port Warden, a Canadian Government official, whose duty it was to examine both damaged ships and damaged cargo, also joined in this survey. It being impossible to obtain a drydock to make any repairs at Halifax, all parties, including Lloyds, London Salvage Association and the Port Warden, together with Captain Gilboy, representing the owners, joined in the recom-
4092 mendation that the bulkhead between No. 1 and No. 2 hold be shored up, the cargo removed from No. 1 between decks and 400 tons of ballast be put in the stern of the vessel and that the vessel then proceed to New York with a tug for the purpose of making permanent repairs and discharging the cargo. The vessel left Halifax on August 3rd, in convoy of a tug and arrived at New York Saturday afternoon, August 7th. The effect of putting the sand (stone) ballast on the stern of the vessel had been to bring the bow up about four feet, decreasing the water in No. 1

hold from 20 to 16 feet, so that the upper part 4093
of the upper tier of casks of citrate of lime was out of the water, but before entering the harbor of New York, this sand ballast was thrown off at sea as recommended by Lloyds' surveyors. The vessel began discharging her undamaged cargo at Pier C, Jersey City, on August 7th, and continued to discharge at said pier and at 135th Street, New York City, until August 24th. On August 25th, she went into Tietjen & Lang's for survey, being then on the dock 30 hours. On August 28th, she again went into drydock for a period of eight hours for the measurement of plates by the contractor to whom the hull repair work had been 4094
awarded. On September 21st, she was again in drydock and remained there until October 2nd, on which date the repairs were completed. On October 2nd, the vessel now being placed in the water, the citrate of lime was discharged and tendered to the libellants. Libellants refused to take delivery and abandoned to the claimant, who sold the same for the best price obtainable.

The bills of lading exempted the carrier and ship from liability due to perils of the sea, stranding or other accidents of navigation of 4095
whatsoever kind in the following language:

> "IT IS MUTUALLY AGREED AS FOLLOWS—FIRST: The Ship and Carrier shall not be liable for loss or damage occasioned by the perils of the seas or other waters, by fire from any cause or wheresoever occurring, by barratry of the Master or crew, by enemies, pirates, robbers or thieves, by arrest and restraint of princes, rulers or people, by explosion, bursting of boilers, or break-

4096 age of shafts, or any latent defect in hull, machinery or appurtenances, or unseaworthiness of the ship even existing at time of shipment or sailing on the voyage, provided the owners have exercised due diligence to make the vessel seaworthy, by collision, stranding, or other accidents of navigation of whatsoever kind, even when occasioned by the negligence, default or error in judgment of the pilot, master, mariners, or other servants of the shipowner, nor for any loss or damage caused by heat, decay, putrefaction, vermin, rust,
4097 sweat, change of character, shrinkage, leakage, breakage, nor for any loss or damage arising from the nature of the goods or the insufficiency of the packages; nor for any country damages; nor for the obliteration, errors, insufficiency or absence of marks or numbers, address or description; nor for risk of craft, hulk and transshipment; nor for any loss or damage caused by the prolongation of the voyage; nor for any loss or damage occasioned by causes beyond his control."

4098 It is conceded that this exemption relieves the *Willdomino* in the absence of proof of negligence on the part of the ship and her owners, and the burden is on the libellants to show negligence in order to overcome this exemption. See *The Dolbardan Castle*, 222 Fed. 838, and *The Arpillao*, 270 Fed. 426. In the latter case, Judge Hough held that an excessive loss is not in itself sufficient to establish a *prima facie* case of negligence; that neither the burden of proof nor the

burden of evidence has been shifted by the fact of excessive loss. 4099

At the opening of the trial, Mr. Carpenter stated that it was the contention of the libellants that the vessel and her owners were negligent in the following respects:

1. Because the vessel sailed with incompetent engineers, incompetent and inexperienced in handling turbine engines.

2. That the vessel, because of the incompetent engineers, had a breakdown at sea and was obliged to put into Ponta Delgada in the Azores as a port of distress. 4100

3. That at that port the master did not take on sufficient coal to carry her, under the circumstances under which he was obliged to make the voyage, running on one low pressure turbine only, with the high pressure turbines out of commission because of damage, to carry him to the Port of New York.

4. That the vessel sailed from Ponta Delgada with 629 tons of coal, which was not sufficient to carry that vessel over the course she had to take to reach New York and that therefore she was not seaworthy. 4101

5. That the vessel, when she sailed from Ponta Delgada, took a course direct for Sydney. In other words, she did not attempt to make her destination, but took a long leg to Sydney for the purpose of

4102 making a stop there to obtain coal, which was a deviation from her voyage, and that if a deviation, the claimant would be precluded from setting up, as is set up in the pleading, a limitation of liability to $100 per cask.

6. That the vessel was carelessly navigated from Sydney down to Halifax, in that they were trying to steer as close as they could to the coast because they did not have coal enough and that because of that condition they carelessly got into a
4103 fog, close to the coast, a coast known to be dangerous.

7. That they were careless in the operation of her, that she stranded outside of Halifax and that three days thereafter she reached that port, where she was not properly cared for:

(a) In not unloading her there.

(b) In not in any way communicating with the owners and notifying them of the damage to the cargo.

(c) In not in any way consulting any-
4104 body else, a chemist, druggist, or anybody with knowledge of the facts and asking what damage sea water would do to citrate of lime, so that necessary precautions might be taken for the care and salvage of that kind of a cargo.

8. In not putting a mat or other device on the outside of the hull in order to shut out the water and keep out the water from coming into the hull and doing fur-

ther damage to the cargo or from not unloading the cargo at that port or from not doing anything that would have saved what value there was in the cargo at that time. 4105

9. Because the cargo was not unloaded at drydock or otherwise before October 2nd, when it was tendered to the libellants.

Following this opening of counsel, five days were devoted to the taking of testimony, and besides there were a number of depositions. 4106

At the oral argument following the close of the testimony, Mr. Carpenter submitted a large number of points of negligence which he argued he had sustained; in other words, that the *Willdomino* was negligent in the following respects, to-wit:

1. That she sailed from Gibraltar with insufficient coal.

2. That she sailed from Lisbon with insufficient coal.

3. That she sailed from Ponta Delgada with insufficient coal. 4107

4. That she took on two inexperienced Portuguese engineers at Lisbon solely to save ten days' time necessary to get experienced men.

5. At Ponta Delgada she could have made repairs, but it would have taken too much time, so they hastened on with only low pressure turbines working.

4108 6. At Ponta Delgada surveyors recommended that she take sufficient coal and water to reach destination; that she only took 250 tons more, a total of 630, which libellants have proved was not sufficient to take the vessel to New York (the destination) and admittedly only 60 tons more than necessary to take her to Sydney.

7. That she did not sail for her destination (New York), but sailed for Sydney.

4109 8. That at Sydney the owners directed her to sail for Halifax immediately and that she left with only 120 tons, barely enough to reach Halifax and not enough to reach New York.

9. That the course taken to Halifax shows that the vessel was skirting a known dangerous coast, that she did not go out where it was safe because she did not have sufficient coal to risk getting out further.

4110 10. That although striking a dangerous coast in a fog, the master used the sounding machine only once during the night (at 4:30 A. M.); that he did not use a hand line to get samples of bottom; that the vessel struck at 6:30 A. M. on known charted reef near a lighthouse.

11. That the *Lady Laurier* was sent for, which had to take the *Willdomino* in tow because the *Willdomino* did not have sufficient coal to operate pumps and engines at the same time and that when the

boat arrived at Halifax she had aboard only ten tons of coal. 4111

12. That when the *Willdomino* reached Halifax she waited a period of 36 hours pending the arrival of Captain Gilboy from New York. The master was in a port of refuge and he could have taken steps to stop the cargo loss.

13. That at Halifax various surveys were made when Captain Gilboy arrived. At his special request, because of the perishable cargo aboard, the surveyors there permitted the sealing of No. 1 hold, which 4112
held the lime, put ballast on the stern with the idea of rushing the vessel to New York to save lemons on board. The surveyors acceded to this request to save perishable cargo, recommending drydocking at New York.

14. At Halifax they failed to do the most obvious thing under the circumstances, to wit, notify the owners of the cargo of wetting and ask the nature of citrate of lime and possibility of salvage.

15. They failed to get any expert ad- 4113
vice regarding the citrate of lime or make any inquiries even of a druggist regarding that article.

16. That every document written in Halifax says nothing about citrate of lime and says No. 1 hold contained bailed cork. With this information surveyors probably thought the cork would help buoy the vessel on her voyage down. Long afterwards, they changed their minds and the

4114 ballast was dumped at sea, thereby re-immersing the citrate of lime.

17. That they failed to discharge the damaged cargo as recommended by Halifax surveyors.

18. That they refused to tell libellants of damage and took freight moneys and by their conduct caused the payment of duty.

19. That they discharged lemons first, because they knew they were perishable,
4115 and as yet they knew nothing of citrate of lime.

20. That they refused to open No. 1 hold for inspection of Jeffcott, because they wanted to save stevedoring expenses.

21. That they went to 134th Street and discharged cork wood without inquiring of anybody regarding citrate of lime.

22. That they put the vessel on drydock and let the water run from the hold; that they moved some cargo and made no attempt to plug the hole.

4116 23. That they put the vessel back in the water, wetting the cargo anew; that no effort to unload, in spite of the Citro Chemical letter of August 26, Exhibit C-12.

24. That they put the vessel on the drydock a second time, no effort being made to patch the vessel or discharge the cargo and then put her back in the water, wetting the cargo once more.

25. That they never, during that time, made an effort to discharge the cargo: 4117

(a) With divers.

(b) With use of pumps.

(c) In drydock, thence to decks.

(d) By plugging hole in hold and then discharging on to lighters or pier.

26. That in making the first tender of delivery on October 3rd, ten weeks after the date of stranding and eight weeks after arrival in New York, libellants were then under no obligation to accept such a delivery under the circumstances. 4118

27. That on August 26th, the cargo should have been discharged on deck of vessel in drydock, which was just what was done on October 3rd.

It will thus be observed that the negligence attributed covers a very large field. When we were boys we sometimes thought that by adding extra hooks to our fishing paraphernalia there was a greater probability of catching a fish. The line of the libellants, so to speak, shows no less than 27 hooks. Their position might be summarized by asserting that everything done by those aboard the *Willdomino* during the entire trip from Messina to New York was carelessly, negligently and improperly done. Obviously such a contention cannot be answered in a few words. However, I do not think it is necessary or advisable to take up each one of these 27 points and discuss it separately. So in the general discussion which follows I shall attempt to cover only those points which seem to me to be worthy of discussion. 4119

Was the vessel seaworthy at the time of load-

4120 ing the cargo and sailing from Messina? I can find no testimony justifying even an inference that she was unseaworthy. The owners are required to exercise due diligence to make her "in all respects seaworthy and properly manned, equipped and supplied." The vessel had been built for the British Government under the supervision of Lloyds Register about a year and a half before the time of the stranding and she was of the highest classification. She had had some trouble with her engines in December, 1919, and January, 1920, and her owners had spent about $30,000 for the purpose of remedying this trouble,
4121 utilizing the best known experts on turbines in the country for that purpose. Subsequent to the making of these repairs or alterations her trial trip satisfied these experts that she was then in perfect condition. In May, 1920, about three months before she stranded she was in drydock where certain minor repairs were made under the supervision of Lloyds' surveyor who inspected her and thereafter issued his report continuing her classification. So, as I have already indicated, there was nothing upon which to base even an inference that this vessel was not seaworthy in every respect.

4122 And her crew was a competent one, particularly the master and chief engineer. There is no testimony in the case purporting to show that they were not. When the vessel left Messina with this cargo she had a full complement of officers and crew aboard and she was properly equipped and supplied so far as the testimony shows. It is true that later on, while at Lisbon, the master was obliged to employ Portuguese engineers to replace some of his English engineers who had signed off. But these Portuguese engineers held licenses

showing them to be competent for the positions they were hired to fill and they were employed under the supervision of the British Consul, it being impossible to obtain English engineers at that port. Due diligence was exercised by those in charge of the vessel to secure competent men and the men who were secured performed the duties expected of them. A stripping of the threads in the nut of the valve spindle, associated with the turbines and the lubricating system, happened on June 29th. This valve spindle was entirely encased in the steam chest of the pump and could not be opened while the pump was in operation. The testimony of the witness from the Worthington pump concern which manufactured this particular pump is to the effect that it is not usual to open up this steam chest unless there is trouble; that such a valve spindle usually lasts as long as the pump lasts. And there is further testimony that in January, 1919, when the vessel was at the Vulcan Iron Works for repairs this pump had been actually opened up and the spindle was found to be in good condition. The going amiss of this propelling machinery slowed the boat down. According to that part of the bill of lading which I have hereinbefore quoted the master shall not be liable for loss or damage caused by "the prolongation of the voyage."

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When trouble developed she was justified in proceeding to Ponta Delgada, a port of refuge. And taking into consideration the inadequate facilities at that port I think the officers and crew did all that could be reasonably expected of them there. Some repairs were made while there and coal, in the judgment of the officers in charge sufficient to take the vessel to New York, was taken aboard and the vessel resumed her journey.

4126 But thereafter the *Willdomino* proceeded slower than was expected under the low pressure turbines and she was using more coal than had been anticipated. After an elapse of five days the master and chief engineer (on July 15) consulted and decided to put into Sydney for additional coal. They were then on the Great Circle Course and the putting into Sydney meant very little change from the course they were then on.

I cannot agree that the captain and chief engineer committed negligence in failing to take on a sufficient supply of coal at Ponta Delgada, but assuming that they were negligent in that respect,
4127 would not such negligence be "negligent management of the vessel" and fall within that part of the exemption which reads: "negligence, fault or error in judgment of the master, pilot, mariners or other servants of the ship owner"? See *The Silvia*, 171 U. S. 462.

Great stress was made by the libellants on what they termed a deviation—a diverting from the specified course to New York by putting into Sydney. And in support of their contention on that point the case of James Morrison & Co., Limited, v. Shaw, Savill, and Albion Company,
4128 Limited, King's Bench Division (in the Court of Appeal) decided in July, 1916, was cited and relied on. In that case the Court was considering whether a deviation of about 56 miles to Havre, France, was "an intermediate port" within the meaning of the bills of lading at which the steamship had liberty to call—the loss in that case occurring near Havre. The facts there showed that the port of Havre had never been visited by any vessel taking the route which the

steamship *Tokomaru* was following on that trip and the Court held as a matter of fact that Havre was not an "intermediate port" within the meaning of the bills of lading. Judge Swinfen Eady, L. J., delivering the opinion of the Court, among other things, said: 4129

> "I am of the opinion that it is impossible to lay down any hard and fast rule by which it may be determined whether any particular port is an intermediate port within the meaning of a bill of lading. In construing the document all the surrounding circumstances must be taken into consideration. The size and class of ship, the nature of the voyage, the usual and customary course, the natural or usual ports of call, the nature and position of the port in question. It is a question of fact in each case, and in my judgment Bailhache, J., was right in deciding that Havre was not an intermediate port on the voyage of this vessel from New Zealand to London, and that the *Tokomaru* in making for that port was deviating from her voyage, and that the defendants thereby lost the benefit of the exceptions in the bill of lading." 4130 4131

In the instant case the contents of the bills of lading are vastly different. The following clauses are in print—part of the printed form used:

> "Shipped by, or received for shipment * * * to be transported by the good steamship *Willdomino* * * * to New York with liberty to call at INTERMEDIATE PORTS or any port or ports in or out of the customary route in any order, to receive and dis-

4132 charge coal, cargo, passengers, and for any other purposes.

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EIGHTH: The ship has liberty of filling up or bunkering at any port or ports in or out of the way."

No such clauses were considered in the English case just referred to.

At the bottom of the bills of lading in the instant case the following notation appeared in handwriting, "Filling up only in ports on the
4133 way Westwards of New York." This notation is meaningless as it stands. It was probably meant by the foreign agent, who added it, to read "Filling up only in ports on the way Westwards to New York."

There is testimony in the case on the part of the libellants to the effect that Sydney was not a usual, customary nor proper place to coal on voyages from the Mediterranean. The claimant maintains that it was customary for it to coal there. But as I read the printed clauses just quoted it does not make any difference whether Sydney was so regarded or not. It certainly was
4134 not so far out of the Circle Course as to justify one in saying that it was unreasonable on the part of those in charge of the *Willdomino*, under the circumstances in which they found themselves, to turn into Sydney.

In the case of South Atlantic S. S. Line v. London-Savannah Naval Stores Co., C. C. A., 5th Circuit (1918), 255 Fed. 306, there was a bill of lading provision regarding ports of call almost identical with the provisions of the bills of lading

in the instant case. In that case Judge Walker, 4135
speaking for the Court, said:

> "There is no law standing in the way of a shipper under a maritime contract binding himself by an agreement that the vessel carrying his goods, constituting only a part of its cargo, is to have the privilege expressed by the provision just quoted."

And as was said by Judge A. N. Hand in the case of *Emelia S. de Perez*, 1 American Maritime Cases, January, 1923, "The question is one 4136
of degree and reasonable conduct."

A wider latitude should be permitted the master of a vessel proceeding slowly across the Atlantic Ocean than one who is pursuing a coastwise course. The language of the deviation clause is very broad. The *Willdomino* was a British ship and at the time in question there were restrictions upon the supplying of bunkers to foreign ships on the Atlantic coast of the United States. The claimant had been obtaining its bunkers at Sydney and Halifax.

What was meant by the foreign agent who made the ambiguous notation on the printed bill 4137
of lading just referred to? Reverting to clause number eight hereinbefore recited it would seem that "filling up" is distinguished from "bunkering." The words "filling up or bunkering" are used. If this written in clause was intended to read, and I am inclined to think it was, "filling up only in ports on the way Westwards to New York," the written insertion was intended to apply to the loading of cargo. The visit to Sydney and Halifax was not for the purpose of filling in cargo. It is my conclusion that the *Will-*

4138 *domino* was within its rights in proceeding to Sydney under the circumstances and that there was no deviation.

At Sydney the *Willdomino* took aboard some coal and proceeded toward Halifax. Passing through the fog, which has already been mentioned, she stranded off Canso. Water entered the vessel and the citrate of lime was damaged. This quantity of citrate of lime aboard consisted only of about 10% of the entire cargo which was being carried. It was being shipped as ordinary merchandise in ordinary casks without any statement having been made to the owners or ship
4139 officers of the high value of the merchandise or of its peculiar characteristics. Under the circumstances the carrier owed to the goods the duty to use no more than reasonable diligence in caring for the same. See McNeil Higgins Co. v. Old Dominion S. S. Co., 235 Fed. 854; Steamboat *Lynx* v. King and Fisher, 12 Mo. 272; Notara v. Henderson, L. R. 5 Q. B. 346.

The stranding was not caused by the shortage of coal, nor was it caused by the taking on at Lisbon several days after the vessel left Messina of the Portuguese engineers.

4140 The evidence shows that the shipments were well stowed and cared for and were damaged by sea water rushing into hold No. 1 where the shipments were stowed and covering the same within twenty minutes after the stranding off Canso between Sydney and Halifax. The damage to the hull incurred in the stranding extended far back of the collision bulkhead between the fore peak and No. 1 hold, and accounted for the large amount of water getting into the hold and covering the citrate of lime.

The stranding was one of those things which

occurs during navigation at times when competent mariners are exercising due care and diligence. And the stranding was the proximate cause of the damage inflicted on the citrate of lime by sea water. 4141

I have already briefly referred to what those in charge of the *Willdomino* did after the stranding when they arrived in Halifax while the lime was still under water. They consulted with representatives of Lloyds Register and London Salvage Association and the Port Warden, the Canadian official charged with the duty of examining the damaged cargo. These three persons have testified that they considered this citrate of lime along with all the other cargo on board and in view of the fact that it was impossible to obtain a drydock at Halifax for at least three weeks, decided that it was for the interests of all concerned to send the vessel forward to New York after improving her trim and bracing up her bulkhead between No. 1 and No. 2 holds. Not only this, there is undisputed testimony to the effect that at Halifax there were no facilities for taking out or reconditioning this damaged cargo. In view of this testimony I do not believe it would be proper to hold that there was any degree of negligence on the part of the *Willdomino* in leaving Halifax for New York as advised. 4142 4143

On Saturday, August 7th, the vessel arrived in New York. On Monday morning, the 9th, the discharge of the undamaged cargo was begun at Pier C, Jersey City. After most of the cargo was discharged there, the vessel was then taken to 135th Street, New York, where the cork which was in No. 1 hold on top of the citrate of lime was taken out. It is argued on the part of the libellants that divers should have been employed to remove

4144 these casks of citrate of lime weighing from 500 to 1,500 pounds each. This would have entailed a prohibitive expense and I am inclined to believe the testimony in the case which is to the effect that such discharge was unknown in commercial practice in New York.

On August 25 and 26 the vessel was put on drydock for survey and on August 28 she was again placed back on drydock for measurement of plates by the contractor who was to do the job. The repair work on the hull was done expeditiously, the work being finally completed on October 2nd, on which date the cargo was taken
4145 out of the hold and delivery tendered to the libellants. There was a delay of almost one month between August 28 and September 21, during which period of time steel plates were being fabricated to be put on the hull. There is testimony on the part of the claimant to the effect that it would have been impossible to have removed these casks and delivered them while the vessel was in drydock owing to the fact that they were contained in No. 1 hold which was inshore and to have gotten these casks out would have required them to have been lowered into the drydock itself,
4146 which would have been dangerous to the dock and to the safety of the repair men's laborers who were working in this very section of the ship, and would have affected the trim of the vessel and of the floating drydock. No suggestion was made by anybody to do this nor was there any suggestion made during all this time to place a temporary patch on the vessel prior to the permanent repairs, so that the casks might be taken out more quickly. The whole forepart of the ship was torn away, the damage extending far aft of the collision bulkhead between the fore peak and the

No. 1 hold—very extensive damage, the plates being torn open so far that one could have wheeled a wheelbarrow directly into the hold from the outside. The purport of the testimony on this point produced by the libellants is to the effect that those in charge of the *Willdomino* omitted to do what they should have done toward the discharging of the lime. Several things are pointed out which libellants say should have been done. To summarize them one might put it this way: "Instead of doing that, you should have done this," etc., etc. Of course it is not difficult after an event to point out what might have been done with more efficient results. Those in charge of the *Willdomino* were using their best judgment in the circumstances which confronted them. They did not run away, so to speak. The libellant, the Citro Chemical Company, knew of the damage to its citrate of lime before the vessel arrived in New York and the other libellant, Pfizer & Company, learned of it shortly thereafter. On August 9 and almost daily thereafter, a surveyor for the underwriter on the Citro Chemical shipment was aboard the vessel in New York, and he saw the casks of citrate on August 26. He took samples, submitting them to a chemist for analysis. On August 13th a representative of the surveyors for the underwriters of the Pfizer shipment was aboard the vessel and also on various days thereafter. He also took a sample of that shipment. As a result of the analyses of both of the samples taken, it was stated that the shipments were total losses and both of these samples were taken prior to August 27th. It is clear that the officers and crew of the *Willdomino* had no knowledge of the peculiar characteristics of citrate of lime, the possibility

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4150 of its becoming more damaged by remaining in water, or by taking it out of sea water and reimmersing it therein, and if such knowledge was possessed by the libellants, they very readily could have suggested to the ship's officers or owners that the damage could have been lessened by an early discharge or by keeping it in the water, or by doing this or doing that, but there was no suggestion from them, the only comment being that the citrate of lime was worthless, everybody apparently considering that it had been damaged so far as it could be damaged.

4151 In the case of *The Strathdon*, 89 Fed. 374, Judge Thomas at page 381 had this to say respecting the work done and the attitude of the cargo owner:

> "This is illustrated by the nature of the injury, the expedition of the ship owners in the work of restoration, and the policy of the underwriters to express no advice or wish concerning the disposition of the cargo, but rather to leave the carrier in his embarrassment, unaided by counsel, and unconstrained by demand for any definite
4152 action."

and at page 382:

> "What did the carrier omit in the way of diligence in making the repairs? The cargo owners do not point out a single misstep, a culpable act, done or omitted, in the restoring of the ship to seaworthiness. But did the delay, although not in itself unnecessary, constitute an unreasonable detention of the goods without forwarding?

The attitude of the cargo owners at the time towards the existing condition is instructive. On November 11th, Capt. Brewer, representing the cargo owners, arrived at Port Said, and presumptively learned the extent of the disaster, the probable duration of the delay, and the possibility for transshipment and forwarding. It is not pointed out that he suggested any means of facilitating the delivery of the cargo. The information he received from his personal observation was transmitted, it may be assumed, to his principals. It does not appear that they afforded any indication of a desire for transshipment or forwarding." 4153 4154

In this memorandum the range of consideration has started with the building of the ship, the making of repairs, the beginning of the trip at Messina, the stop at the Azores, the turning into Sydney five days after leaving the Azores, the stranding after leaving Sydney, the visit at Halifax, the trip to New York Harbor and what took place in and about New York Harbor from the time of arrival to the day on which the cargo was tendered. Considerable space has necessarily been consumed in an effort to discuss all meritorious points urged. 4155

The conclusion that I have reached, after carefully considering the entire enterprise, is that the libellants have failed to sustain the burden of proving that the damage to the cargo was due to negligence and that therefore the ship and carrier are entitled to the benefit of the exemption against stranding and all other accidents of navi-

4156 gation contained in the bills of lading. It is therefore unnecessary for me to consider Point III urged on the part of the claimant which is to the effect that even if the Court should find that the libellants have shown any negligence on the part of the ship or carrier resulting in the damage to libellants' shipments, such negligence was "negligent navigation or management" for which the claimant as owner of the vessel is not liable under the terms of the Harter Act.

The conclusion arrived at calls for a dismissal of the original libels, and a decree in favor of the claimant's cross-libel.

4157

Citation.

United States of America, } *ss.*:
Third Judicial Circuit. }

(Seal)

TO THE STEAMSHIP WILLDOMINO, HER ENGINES, BOILERS, ETC.:

YOU ARE HEREBY CITED AND ADMONISHED to be and appear before the Judges of the United States Circuit Court of Appeals for the Third Circuit in
4158 the City of Philadelphia on the 6th day of July, in the year of our Lord one thousand nine hundred and twenty-three, pursuant to an appeal filed in the Clerk's office of the District of the United States for the District of New Jersey, wherein Citro Chemical Company of America is libellant, and the Steamship *Willdomino*, her engines, boilers, etc., is respondent, to show cause, if any there be, why the final decree dismissing the libel as in the petition of appeal mentioned should not be corrected, and why speedy justice should not be done to the parties in that behalf.

WITNESS the Honorable Charles F. Lynch, Judge of the United States District Court for the District of New Jersey, in the Third Judicial Circuit, this 6th day of June, in the year of our Lord one thousand nine hundred and twenty-three. 4159

CHARLES F. LYNCH,
Judge.

Served June 6th, 1923.

HUNT, HILL & BETTS,
Proctors for Resp't-Appellee.

Decree Against Citro Chemical Co.

4160

At a Stated Term of the District Court of the United States for the District of New Jersey, held at the Court Rooms in the Federal Building in the City of Newark, New Jersey, on the 15th day of May, 1923.

Present:—HON. CHARLES F. LYNCH,
District Judge.

CITRO CHEMICAL COMPANY OF AMERICA, 4161
Libellant,

—against—

THE S. S. WILLDOMINO, her engines, etc.,
Respondent,

CONVOY STEAMSHIP COMPANY, LTD.,
Claimant.

This cause having come on to be heard on the pleadings and proofs and having been

4162 argued and submitted by the advocates of the respective parties, and due deliberation having been had, and the Court having handed down its decision in writing dismissing the libel herein against the *S. S. Willdomino,* its claimant, and the claimant's stipulator for costs and value, and the costs of the claimant herein having been taxed in the sum of $623.65,

Now, on motion of Hunt, Hill & Betts, proctors for the claimant, it is

ORDERED, ADJUDGED AND DECREED that the libel
4163 herein be and the same hereby is dismissed; and it is

FURTHER ORDERED, ADJUDGED AND DECREED that the claimant, Convoy Steamship Company, Ltd., have and recover from Citro Chemical Company of America, the libellant herein, and its stipulator, its costs as taxed in the sum of $623.65, and that the said claimant have execution for $623.65 against the libellant with interest thereon from the date of the entry of the decree herein until paid; and it is

4164 FURTHER ORDERED that unless this decree be satisfied or an appeal be taken therefrom within twenty days after the service of a copy hereof, with notice of entry, upon the proctors for the libellant herein, the libellant's stipulator for costs show cause before this Court within four days, or upon the first day of jurisdiction thereafter, why execution should not issue against it, its goods, chattels and lands, to satisfy this decree; and it is

Notice of Appeal.

FURTHER ORDERED, that unless an appeal be taken from this decree within the time limited and prescribed by the rules of this Court, that the claimant's stipulations for value and costs be cancelled. 4165

Enter,

CHARLES F. LYNCH,
D. J.

Notice of Appeal of Citro Chemical Company of America From the Final Decree Dismissing the Libel. 4166

UNITED STATES DISTRICT COURT,

DISTRICT OF NEW JERSEY.

CITRO CHEMICAL COMPANY OF AMERICA,
Libellant,

—against—

STEAMSHIP "WILLDOMINO," her engines, boilers, etc.,
Respondent. 4167

Sirs:

PLEASE TAKE NOTICE that the libellant, above named, the Citro Chemical Company of America, hereby appeals to the United States Circuit Court of Appeals, for the Third Circuit, from the final decree dismissing the libel, entered in

4168 the above entitled action on the 15th day of May, 1923, and from each and every part of said decree.

Dated, New York, May 21, 1923.

Yours, etc.,

BIGHAM, ENGLAR & JONES,
Proctors for Libellant-Appellant,
64 Wall Street,
New York City.

4169 To:

GEORGE T. CRAMMER, ESQ.,
Clerk of United States District
Court for the District of New Jersey.

MESSRS. HUNT, HILL & BETTS,
Proctors for Respondent-Appellee,
120 Broadway,
New York City.

4170

Petition of Appeal.

4171

Served June 6th, 1923.

UNITED STATES CIRCUIT COURT OF APPEALS,

FOR THE THIRD CIRCUIT.

CITRO CHEMICAL COMPANY OF AMERICA,
Libellant-Appellant,
—against—

STEAMSHIP "WILLDOMINO," her engines, boilers, etc., 4172
Respondent-Appellee.

The CITRO CHEMICAL COMPANY OF AMERICA, the libellant-appellant herein, respectfully shows as follows:

1. On or about the 1st day of October, 1920, the libellant filed a libel in the District Court of the United States for the District of New Jersey against the above named steamship *Willdomino,* her engines, boilers, etc., in a cause of contract 4173
and cargo damage, civil and maritime, to recover the sum of Sixty-seven Thousand and Five Hundred ($67,500) Dollars, alleged to be due to the libellant, arising out of a breach of a certain contract of affreightment by which the goods in question were to be transported by the said steamship *Willdomino* from the Port of Messina to the Port of New York, as will appear more fully by reference to the said libel.

4174 2. On or about the 17th day of November, 1920, the respondent duly appeared and filed its answer to the said libel, praying that the said libel be dismissed with costs as by reference to the said answer will more fully appear.

3. That on February 26-27, 1923, said cause came on for hearing before the Hon. Charles F. Lynch, Judge of the said District Court, and such proceedings were had; that on the 15th day of May, 1923, a final decree was made and entered in said cause whereby it was adjudged that the libel of the said libellant be dismissed with
4175 costs.

4. The above named libellant and appellant is advised and insists that said final decree is erroneous in that said District Court did not decree to your libellant damages with interest and costs as prayed for in said libel.

5. In that said Court held, contrary to the evidence of disinterested shipping men, that the vessel was not guilty of a deviation in proceeding to Sydney on a voyage from Messina via Gibraltar to New York.
4176

6. In that said Court held, contrary to the evidence of disinterested shipping men, that the vessel was not guilty of a deviation in proceeding from Gibraltar to Lisbon under a bill of lading issued at Messina, which provided filling up only at ports on her voyage westwards of New York.

7. In that said Court held that the retention of the cargo on board the steamship *Willdomino*

from August 7th until October 26th, while the vessel was in New York, was not a deviation. 4177

8. In that said Court held that the claimant was excused by the Harter Act in respect of errors in navigation, although claimant had not used due diligence to make the ship seaworthy, and had, in fact, ordered the ship to sail unseaworthy with an insufficient supply of coal.

9. In that said Court held that the stranding of the *Willdomino* was not due to negligent navigation, although the vessel had been operated in a fog along a dangerous coast for twenty (?) hours and had taken no sights and only one sounding during that entire period. 4178

10. In that said Court did not find that the vessel owners had failed to exercise due care and custody over the cargo after the original accident, by notifying the cargo owners of the condition of the cargo while the vessel was at Halifax, and taking such steps as were available to prevent further deterioration of the cargo while at that port.

11. In that the Court did not find that the vessel owners did not exercise proper care and custody of the cargo, but retained it upon the *Willdomino* for their own convenience after arrival of the vessel at New York, from August 7th to October 4th, although the cargo was continually deteriorating. 4179

12. In that said Court held, as a matter of law, that sailing from Ponta Delgada with an

4180 insufficient supply of coal did not render the vessel unseaworthy, but was an error in the management and navigation of the vessel.

13. In that said Court held, as a matter of law, that sailing from Lisbon for New York with an insufficient supply of coal did not render the vessel unseaworthy, but was an error in the management and navigation of the vessel.

14. In that said Court did not find, as a matter of fact, that the vessel sailed from Ponta Delgada direct to Sydney and was, therefore, guilty of a deviation from the usual and cus-
4181 tomary route from Ponta Delgada to New York.

15. In that said Court did not find that libellant was entitled to a refund of freight paid by it, in view of the fact that no notice was given to the libellant of damage to its cargo either at Halifax or after arrival of the vessel at New York, until August 17th, after bill for freight had been sent to libellant and paid by it.

16. In that said Court held that the retention of the cargo upon the vessel, while the remainder
4182 of the cargo was discharged at New York and the subsequent docking and undocking of the vessel with libellant's cargo still in it, did not constitute a deviation and a failure on the part of the claimant to properly care for and protect said cargo entrusted to it.

17. In that the Court found, as a matter of fact, that the decision to go to Sydney was made by the master and chief engineer at sea, although the evidence showed that the vessel had been

ordered to Sydney by the owners while at Gibraltar, and also showed that the owners wirelessed the vessel to change her course from Sydney to Halifax, while the vessel was at sea and prior to the decision dealt with by said Court. 4183

18. In that said Court found, as a matter of fact, that claimant had been obtaining its bunkers at Sydney and Halifax, although the evidence showed that the claimant had only sent one vessel to either of these ports heretofore, and that that vessel had been dispatched there from a North European port to obtain bunkers for an ensuing voyage. 4184

19. In that said Court did not find, as a matter of fact, that the steamship *Willdomino* was dispatched to Sydney and/or later to Halifax in order to obtain bunkers for the ensuing voyage rather than to complete the voyage in question.

20. In that said Court did not find, as a matter of fact, that the order to the vessel at Gibraltar, requiring her to proceed to Sydney was made, not with a view to saving the difference between the price at Gibraltar and at Sydney, which was inconsiderable when compared with the actual value of the time which would be lost by the vessel in going to this port for bunkers, but was sent with a view to having the *Willdomino* obtain coal at Sydney for the ensuing voyage, which could not readily be obtained at New York because of coal restrictions and the nationality of the vessel. 4185

21. In that said Court entirely disregarded the cable of the claimant to the master, reading

4186 as follows, which ordered the vessel to deviate and to sail with an insufficient supply of bunkers:

> "Your coal requirements excessive, cost of bunkers Gibraltar very high, make accurate measurement remaining bunkers; if not enough to make North Sydney, take only enough to reach there; cut down consumption in every way; if fuel runs short reaching the coast, cut out one boiler."

22. In that the Court did not find that pro-
4187 ceeding to Sydney for coal for the next voyage was a filling in with cargo contrary to the bill of lading provision:

> "Filling up only in ports on the way westwards of New York."

23. In that the Court found, as a matter of fact, that there were no facilities for taking out or reconditioning the cargo at Halifax.

24. In that the Court found, as a matter of fact, contrary to the evidence of experts, that the discharge of cargo prior to the time when
4188 this cargo was discharged either by divers while in drydock, or otherwise, was unknown in commercial practice in New York.

25. In that the Court failed to find, as a matter of fact, that if the vessel had taken a proper supply of coal, she would not have been at or near the point where she stranded and, therefore, that her stranding was directly due to her unseaworthiness.

26. In that the Court did not find that the failure of the vessel to sail in a seaworthy condition, with the subsequent negligent stranding, rendered the vessel owner liable for the damage sustained by libellant. 4189

27. In that the Court did not find that the deviation deprived the claimants of the benefit of all exemptions from liability contained in the bill of lading, and made the carrier an absolute insurer and, as such, liable for the entire loss.

28. In that the said Court did not find that the deviation to Sydney and to Halifax, and the retention of the cargo upon the vessel, displaced and nullified all terms of the bill of lading and subjected the carrier and the vessel to the liabilities imposed upon carriers by common law in the absence of any contractual conditions or exceptions. 4190

29. In that the Court did not find that the sailing from Sydney for Halifax with an insufficient supply of coal constituted unseaworthiness, which made it necessary for the vessel to keep close to the shore and caused or contributed to her stranding. 4191

30. In that the Court did not find that the *Willdomino* should have taken on a sufficient supply of coal at Sydney, even though delayed there to obtain this coal, to have taken her direct to New York.

31. In that the Court dismissed the libel herein with costs.

4192 32. In that said Court did not enter a decree in favor of libellant herein for the damages sustained by it on account of the matters set forth in the libel herein.

For these and other reasons, the above named libellant and appellant appeals from said final decree to the United States Circuit Court of Appeals for the Third Circuit, and on said appeal intends to secure a new decision on the law and on the facts, upon the pleadings and proofs in said District Court, and prays that the record and proceedings aforesaid may be returned to the
4193 United States Circuit Court of Appeals for the Third Circuit and the decree may be reversed, with libellant's costs in the District Court and in this Court.

Dated, Jersey City, N. J., June 5th, 1923.

McDERMOTT, ENRIGHT & CARPENTER,
BIGHAM, ENGLAR & JONES,
Proctors for Libellant-Appellant.

Allowed, June 6th, 1923.

4194 CHARLES F. LYNCH,
District Judge.

Citation.

United States of America,
Third Judicial Circuit. } *ss.*: 4195

(Seal)

TO THE STEAMSHIP WILLDOMINO, HER ENGINES, BOILERS, ETC.:

YOU ARE HEREBY CITED AND ADMONISHED to be and appear before the Judges of the United States Circuit Court of Appeals for the Third Circuit in the City of Philadelphia on the 6th day of July, in the year of our Lord one thousand nine hundred and twenty-three, pursuant to an appeal 4196
filed in the Clerk's office of the District of the United States for the District of New Jersey, wherein Charles Pfizer and Co., Inc., is libellant, and the Steamship *Willdomino,* her engines, boilers, etc., is respondent, to show cause, if any there be, why the final decree dismissing the libel as in the petition of appeal mentioned should not be corrected, and why speedy justice should not be done to the parties in that behalf.

WITNESS the Honorable Charles F. Lynch, Judge of the United States District Court for the District of New Jersey, in the Third Judicial 4197
Circuit, this 6th day of June, in the year of our Lord one thousand nine hundred and twenty-three.

CHARLES F. LYNCH,
Judge.

Served June 6th, 1923.

HUNT, HILL & BETTS,
Proctors for Resp't-Appellee.

Decree Against C. Pfizer & Co., Inc.

4198

At a Stated Term of the District Court of the United States for the District of New Jersey, held at the Court Rooms in the Federal Building in the City of Newark, New Jersey, on the 15th day of May, 1923.

Present:—Hon. Charles F. Lynch,
District Judge.

4199 Charles Pfizer & Co., Inc.,
Libellant,

—against—

The S. S. Willdomino, her engines, etc.,
Respondent,

Convoy Steamship Company, Ltd.,
Claimant.

This cause having come on to be heard on the pleadings and proofs and having been
4200 argued and submitted by the advocates of the respective parties, and due deliberation having been had, and the Court having handed down its decision in writing dismissing the libel herein against the *S. S. Willdomino,* its claimant, and the claimant's stipulator for costs and value, and the costs of the claimant herein having been taxed in the sum of $1,986.18,

Now, on motion of Hunt, Hill & Betts, proctors for the claimant, it is

Decree.

ORDERED, ADJUDGED AND DECREED that the libel herein be and the same hereby is dismissed; and it is 4201

FURTHER ORDERED, ADJUDGED AND DECREED that the claimant, Convoy Steamship Company, Ltd., have and recover from Charles Pfizer & Co., Inc., the libellant herein, and its stipulator, its costs as taxed in the sum of $1,986.18 and that the said claimant have execution for $1,986.18 against the libellant with interest thereon from the date of the entry of the decree herein until paid; and it is

4202

FURTHER ORDERED that unless this decree be satisfied or an appeal be taken therefrom within twenty days after the service of a copy hereof, with notice of entry, upon the proctors for the libellant herein, the libellant's stipulator for cost show cause before this Court within four days, or upon the first day of jurisdiction thereafter, why execution should not issue against it, its goods, chattels and lands, to satisfy this decree; and it is

FURTHER ORDERED that unless an appeal be taken from this decree within the time limited and prescribed by the rules of this Court, that the claimant's stipulations for value and costs be cancelled. 4203

Enter,

CHARLES F. LYNCH,
D. J.

Notice of Appeal of Charles Pfizer & Co., Inc., From the Final Decree Dismissing the Libel.

4204

UNITED STATES DISTRICT COURT,

DISTRICT OF NEW JERSEY.

CHARLES PFIZER & CO., INC.,
Libellant,

STEAMSHIP "WILLDOMINO," her engines, boilers, etc.,
Respondent.

4205 *Sirs*:

PLEASE TAKE NOTICE that the libellant, above-named, Charles Pfizer & Co., Inc., hereby appeals to the United States Circuit Court of Appeals for the Third Circuit, from the final decree dismissing the libel, entered in the above entitled action on the 15th day of May, 1923, and from each and every part of said decree.

Dated, New York, May 21, 1923.

Yours, etc.,

4206 BIGHAM, ENGLAR & JONES,
Proctors for Libellant-Appellant,
64 Wall Street,
New York City.

To:

GEORGE T. CRAMMER, ESQ.,
Clerk of United States District Court,
for the District of New Jersey.

MESSRS. HUNT, HILL & BETTS,
Proctors for Respondent-Appellee,
120 Broadway,
New York City.

Petition of Appeal.

4207

Served June 6th, 1923.

UNITED STATES CIRCUIT COURT
OF APPEALS,

FOR THE THIRD CIRCUIT.

CHARLES PFIZER & COMPANY, INC.,
Libellant-Appellant,

—against—

Steamship "WILLDOMINO," her engines, boilers, etc., 4208
Respondent-Appellee.

Charles Pfizer & Company, Inc., the libellant-appellant herein, respectfully shows as follows:

1. On or about the 1st day of October, 1920, the libellant filed a libel in the District Court of the United States for the District of New Jersey against the above named steamship *Willdomino*, her engines, boilers, etc., in a cause of 4209
contract and cargo damage, civil and maritime, to recover the sum of One hundred and seventy-nine thousand ($179,000) Dollars, alleged to be due to the libellant, arising out of a breach of a certain contract of affreightment by which the goods in question were to be transported by the said steamship *Willdomino* from the Port of Messina to the Port of New York, as will appear more fully by reference to the said libel.

4210 2. On or about the 17th day of November, 1920, the respondent duly appeared and filed its answer to the said libel, praying that the said libel be dismissed with costs, as by reference to the said answer will more fully appear.

3. That on February 26-27, 1923, said cause came on for hearing before the Hon. Charles F. Lynch, Judge of the said District Court, and such proceedings were had, that on the 15th day of May, 1923, a final decree was made and entered in said cause, whereby it was adjudged that the libel of the said libellant be dismissed with costs.

4211.

4. The above named libellant and appellant is advised and insists that said final decree is erroneous in that said District Court did not decree to your libellant damages with interest and costs as prayed for in said libel.

5. In that said Court held, contrary to the evidence of disinterested shipping men, that the vessel was not guilty of a deviation in proceeding to Sydney on a voyage from Messina via Gibraltar to New York.

4212 6. In that said Court held, contrary to the evidence of disinterested shipping men, that the vessel was not guilty of a deviation in proceeding from Gibraltar to Lisbon under a bill of lading issued at Messina, which provided filling up only at ports on her voyage westwards of New York.

7. In that said Court held that the retention of the cargo on board the steamship *Willdomino* from August 7th until October 26th, while the vessel was in New York, was not a deviation.

8. In that said Court held that the claimant was excused by the Harter Act in respect of errors in navigation, although claimant had not used due diligence to make the ship seaworthy, and had, in fact, ordered the ship to sail unseaworthy with an insufficient supply of coal. 4213

9. In that said Court held that the stranding of the *Willdomino* was not due to negligent navigation, although the vessel had been operated in a fog along a dangerous coast for twenty (?) hours and had taken no sights and only one sounding during that entire period.

4214

10. In that said Court did not find that the vessel owners had failed to exercise due care and custody over the cargo after the original accident, by notifying the cargo owners of the condition of the cargo while the vessel was at Halifax, and taking such steps as were available to prevent further deterioration of the cargo while at that port.

11. In that the Court did not find that the vessel owners did not exercise proper care and custody of the cargo, but retained it upon the *Willdomino* for their own convenience after arrival of the vessel at New York from August 7th to October 4th, although the cargo was continually deteriorating. 4215

12. In that said Court held, as a matter of law, that sailing from Ponta Delgada with an insufficient supply of coal did not render the vessel unseaworthy, but was an error in the management and navigation of the vessel.

4216 13. In that said Court held, as a matter of law, that sailing from Lisbon for New York with an insufficient supply of coal did not render the vessel unseaworthy, but was an error in the management and navigation of the vessel.

14. In that said Court did not find, as a matter of fact, that the vessel sailed from Ponta Delgada direct to Sydney and was, therefore, guilty of a deviation from the usual and customary route from Ponta Delgada to New York.

15. In that said Court held that the retention
4217 of the cargo upon the vessel while the remainder of the cargo was discharged at New York, and the subsequent docking and undocking of the vessel with libellant's cargo still in it, did not constitute a deviation and a failure on the part of the claimant to properly care for and protect said cargo entrusted to it.

16. In that the Court found, as a matter of fact, that the decision to go to Sydney was made by the master and chief engineer at sea, although the evidence showed that the vessel had been ordered to Sydney by the owners while at Gibraltar,
4218 and also showed that the owners wirelessed the vessel to change her course from Sydney to Halifax while the vessel was at sea and prior to the decision dealt with by said Court.

17. In that said Court found, as a matter of fact, that claimant had been obtaining its bunkers at Sydney and Halifax, although the evidence showed that the claimant had only sent one vessel to either of these ports heretofore, and that that vessel had been dispatched there from a North

European port to obtain bunkers for an ensuing voyage. 4219

18. In that said Court did not find, as a matter of fact, that the steamship *Willdomino* was dispatched to Sydney and/or later to Halifax in order to obtain bunkers for the ensuing voyage rather than to complete the voyage in question.

19. In that said Court did not find, as a matter of fact, that the order to the vessel at Gibraltar, requiring her to proceed to Sydney was made, not with a view to saving the difference between the price at Gibraltar and at Sydney, which was inconsiderable when compared with the actual value of the time which would be lost by the vessel in going to this port for bunkers, but was sent with a view to having the *Willdomino* obtain coal at Sydney for the ensuing voyage, which could not readily be obtained at New York because of coal restrictions and the nationality of the vessel. 4220

20. In that said Court entirely disregarded the cable of the claimant to the master reading as follows, which ordered the vessel to deviate and to sail with an insufficient supply of bunkers: 4221

> "Your coal requirements excessive cost of bunkers Gibraltar very high make accurate measurement remaining bunkers if not enough to make North Sydney take only enough to reach there cut down consumption in every way if fuel runs short reaching the coast cut out one boiler."

4222 21. In that said Court did not find that proceeding to Sydney for coal for the next voyage was a filling in with cargo contrary to the bill of lading provision:

"Filling up only in ports on the way westwards of New York."

22. In that the Court found, as a matter of fact, that there were no facilities for taking out or reconditioning the cargo at Halifax.

23. In that the Court found, as a matter of
4223 fact, contrary to the evidence of experts, that the discharge of cargo prior to the time when this cargo was discharged either by divers while in drydock, or otherwise, was unknown in commercial practice in New York.

24. In that the Court failed to find, as a matter of fact, that if the vessel had taken a proper supply of coal, she would not have been at or near the point where she stranded and, therefore, that her stranding was directly due to her unseaworthiness.

4224 25. In that the Court did not find that the failure of the vessel to sail in a seaworthy condition, with the subsequent negligent stranding, rendered the vessel owner liable for the damage sustained by libellant.

26. In that the Court did not find that the deviation deprived the claimants of the benefit of all exemptions from liability contained in the bill of lading and made the carrier an absolute insurer and, as such, liable for the entire loss.

27. In that the said Court did not find that the deviation to Sydney and to Halifax, and the retention of the cargo upon the vessel, displaced and nullified all terms of the bill of lading, and subjected the carrier and the vessel to the liabilities imposed upon carriers by common law in the absence of any contractual conditions or exceptions. 4225

28. In that the Court did not find that the sailing from Sydney for Halifax with an insufficient supply of coal constituted unseaworthiness which made it necessary for the vessel to keep close to the shore and caused or contributed to her stranding. 4226

29. In that the Court did not find that the *Willdomino* should have taken on a sufficient supply of coal at Sydney, even though delayed there to obtain this coal, to have taken her direct to New York.

30. In that the Court dismissed the libel herein with costs.

31. In that said Court did not enter a decree in favor of libellant herein for the damages sustained by it on account of the matters set forth in the libel herein. 4227

For these and other reasons, the above named libellant and appellant appeals from said final decree to the United States Circuit Court of Appeals for the Third Circuit, and on said appeal intends to secure a new decision on the law and on the facts, upon the pleadings and proofs in said District Court, and prays that the record and

4228 proceedings aforesaid may be returned to the United States Circuit Court of Appeals for the Third Circuit, and the decree may be reversed, with libellant's costs in the District Court and in this Court.

Dated, Jersey City, N. J., June 5th, 1923.

McDERMOTT, ENRIGHT & CARPENTER,
BIGHAM, ENGLAR & JONES,
Proctors for Libellant-Appellant.

Allowed June 6, 1923.

4229

CHARLES F. LYNCH,
District Judge.

Citation.

United States of America, } ss.:
Third Judicial Circuit. }

(Seal)

To the Convoy Steamship Co., Ltd., owner of
4230 the Steamship Willdomino:

You are hereby cited and admonished to be and appear before the Judges of the United States Circuit Court of Appeals for the Third Circuit in the City of Philadelphia on the 6th day of July, in the year of our Lord one thousand nine hundred and twenty-three, pursuant to an appeal filed in the Clerk's office of the District of the United States for the District of New Jersey, wherein the Convoy Steamship Co., Ltd., owner

of the Steamship *Willdomino,* is cross-libellant, and Charles Pfizer & Co., Inc., is cross-respondent, to show cause, if any there be, why the final decree rendered against the cross-respondent as in the petition of appeal mentioned should not be corrected, and why speedy justice should not be done to the parties in that behalf. 4231

WITNESS the Honorable Charles F. Lynch, Judge of the United States District Court for the District of New Jersey, in the Third Judicial Circuit, this 6th day of June, in the year of our Lord one thousand nine hundred and twenty-three. 4232

CHARLES F. LYNCH,
Judge.

Served June 6th, 1923.

HUNT, HILL & BETTS,
Proctors for Resp't-Appellee.

4233

Decree on Cross-Libel.

4234

At a Stated Term of the District Court of the United States for the District of New Jersey, held at the Court Rooms in the Federal Building in the City of Newark, New Jersey, on the 15th day of May, 1923.

Present:—Hon. Charles F. Lynch,
District Judge.

Convoy Steamship Company, Ltd.,
4235 Cross-Libellant,

—against—

Charles Pfizer & Co., Inc.,
Cross-Respondent.

This cause having come on to be heard on the pleadings and proofs and having been argued and submitted by the advocates of the respective parties, and due deliberation having been had, and the Court having handed down its decision in writing, providing that the cross-
4236 libellant herein recover from the cross-respondent the agreed freight for the transportation of 335 casks of citrate of lime from Messina, Italy, to New York City, amounting to $2,514.08, and the costs of the cross-libellant herein having been taxed at $55.80;

Now, on motion of Hunt, Hill & Betts, proctors for the cross-libellant, it is

Ordered, adjudged and decreed that the cross-libellant herein recover from the cross-respond-

ent the sum of $2,514.08, with interest thereon 4237
from October 2nd, 1920, amounting to $395.13, together with $55.80 costs as taxed, making a total sum of $2,965.01, with interest thereon from the date of this decree until paid, and that cross-libellant have execution against said cross-respondent for said sum; and it is

FURTHER ORDERED, ADJUDGED AND DECREED that unless this decree be satisfied or an appeal be taken therefrom within twenty days after the service of a copy hereof, with notice of entry, upon the proctors for the cross-respondent herein, the cross-respondent's stipulator for costs show cause 4238
before this Court within four days, or upon the first day of jurisdiction thereafter, why execution should not issue against it, its goods, chattels and lands, to satisfy this decree.

Enter,

CHARLES F. LYNCH,
D. J.

IT IS HEREBY STIPULATED that the agreed freight for the transportation of the 335 casks of citrate of lime from Messina, Italy, to New York City, 4239
by the cross-libellant herein on the *S. S. Willdomino,* amounted to $2,514.08.

Dated May 1, 1923.

BIGHAM, ENGLAR & JONES,
Proctors for Cross-Respondent.

HUNT, HILL & BETTS,
Proctors for Cross-Libellant.

Notice of Appeal of Charles Pfizer & Co., Inc., From the Final Decree in Favor of Cross-Libellant.

4240

UNITED STATES DISTRICT COURT,

DISTRICT OF NEW JERSEY.

CONVOY STEAMSHIP CO., LTD., Owner of the Steamship "WILLDOMINO,"
Cross-Libellant,

—against—

CHARLES PFIZER & CO., INC.,
Cross-Respondent.

4241

Sirs:

PLEASE TAKE NOTICE that the cross-respondent above named, Charles Pfizer & Co., Inc., hereby appeals to the United States Circuit Court of Appeals for the Third Circuit, from the final decree in favor of the cross-libellant, entered in the above entitled action on the 15th day of May, 1923, and from each and every part of said decree.

Dated, New York, May 21, 1923.

Yours, etc.,

4242

BIGHAM, ENGLAR & JONES,
Proctors for Cross-Respondent-Appellant,
64 Wall Street,
New York City.

To:

GEORGE T. CRAMMER, ESQ.,
Clerk of United States District
Court for the District of New Jersey.

MESSRS. HUNT, HILL & BETTS,
Proctors for Cross-Libellant-Appellee,
120 Broadway,
New York City.

Petition of Appeal.

4243

Served June 6th, 1923.

UNITED STATES CIRCUIT COURT
OF APPEALS

FOR THE THIRD CIRCUIT.

CONVOY STEAMSHIP CO., LTD., Owner of the Steamship "WILLDOMINO,"
Cross-Libellant-Appellee,

—against—

CHARLES PFIZER & COMPANY, INC.,
Cross-Respondent-Appellant. 4244

Charles Pfizer & Company, Inc., the cross-respondent-appellant herein, respectfully shows as follows:

1. On or about the 17th day of November, 1920, the cross-libellant herein filed a cross-libel in the District Court of the United States for the District of New Jersey, against the above named Charles Pfizer & Company, Inc., in a cause of contract, civil and maritime, to recover the sum of Two Thousand Five Hundred Fourteen and 80/100 ($2,514.80) Dollars, alleged to be due to the cross-libellant, arising out of a breach of a certain contract of affreightment by which the goods in question were to be transported by the said steamship *Willdomino* from the port of Messina, Italy, to the port of New York, as will appear more fully by reference to the said cross-libel. 4245

2. On or about the 31st day of January, 1923, the cross-respondent duly appeared and filed its

4246 answer to the said cross-libel, praying that the said cross-libel be dismissed with costs, as by reference to the said cross-answer will more fully appear.

3. That on February 26th, 1923, said cause came on for hearing before the Hon. Charles F. Lynch, Judge of the said District Court, and such proceedings were had; that on the 15th day of May, 1923, a final decree was made and entered in said cause, whereby it was adjudged that the cross-libel against the cross-respondent for the amount of damages prayed for in said
4247 cross-libel, be allowed with costs.

4. The above named cross-respondent and appellant is advised and insists that said decree is erroneous in that it does not decree that the cross-libel of the said cross-libellant should be dismissed with costs.

5. In that the said Court held, as a matter of law, that the claimant was entitled to a decree for freight in its cross-libel.

6. In that the Court did not find that cross-
4248 respondent was relieved from liability because of the deviation and breach of the original contract of affreightment.

7. In that said Court did not find that the cargo did not arrive in specie and, therefore, no freight was to be collected.

8. In that said Court did not find that due and proper delivery was not made or tendered, and no freight was due and owing.

9. In that said Court did not find that sums due and owing said cross-respondent from said cross-libellant were in excess of the amounts due from said cross-respondent to cross-libellant. 4249

10. In that said Court did not dismiss the cross-libel.

11. In that said Court did not enter a decree in favor of the cross-respondent herein, dismissing the cross-libel with costs.

For these and other reasons, the above named cross-respondent and appellant appeals from said final decree to the United States Circuit Court of Appeals for the Third Circuit, and on said appeal, intends to secure a new decision on the law and on the facts, upon the pleadings and proofs in said District Court, and prays that the record and proceedings aforesaid may be returned to the United States Circuit Court of Appeals for the Third Circuit, and the decree may be reversed, with cross-respondent's costs, in the District Court and in this Court. 4250

Dated, Jersey City, N. J., June 5th, 1923.

4251

McDERMOTT, ENRIGHT & CARPENTER,
BIGHAM, ENGLAR & JONES,
Proctors for Appellant.

Allowed.

CHARLES F. LYNCH,
Judge.

June 6, 1923.

Stipulation as to Exhibits.

4252 UNITED STATES
CIRCUIT COURT OF APPEALS,

FOR THE THIRD CIRCUIT.

No. 50—October Term, 1923.

CITRO CHEMICAL COMPANY OF AMERICA,
Appellant,

—against—

Steamship "WILLDOMINO", her engines, boilers, etc.,
Appellee.

4253 No. 51—October Term, 1923.

CHARLES PFIZER & COMPANY, INC.,
Appellant,

—against—

Steamship "WILLDOMINO", her engines, boilers, etc.,
Appellee.

No. 52—October Term, 1923.

4254 CHARLES PFIZER & COMPANY, INC.,
Appellant,

—against—

CONVOY STEAMSHIP COMPANY, LTD., owner of the Steamship "WILLDOMINO", her engines, boilers, etc.,
Appellee.

IT IS HEREBY STIPULATED AND AGREED by and between the proctors hereto that inasmuch as Claimant's Exhibit No. 1 is a physical exhibit, and

therefore could not be included in the printed record, it shall be produced upon the argument of the appeal and be submitted to this Court with the same force and effect as the other exhibits, which are printed or reproduced in this Transcript of Record. 4255

IT IS FURTHER STIPULATED AND AGREED by and between the proctors hereto that Libellant's Exhibit No. 17 (The Rand-McNally Map of Steamship Routes of The World) need not be reproduced as an exhibit in the Transcript of Record but individual copies of the same shall be available both for the Court and proctors upon the argument of the appeal and it (Libellant's Exhibit No. 17) shall be deemed to have the same force and effect as if it had been reproduced in the Transcript of Record. 4256

IT IS FURTHER STIPULATED AND AGREED by and between said proctors that if there is any error in this Transcript of Record, the same may be corrected and likewise, if there is any omission in this Transcript of Record, except as heretofore set forth, the same may be supplied.

4257

Dated, New York, October 10th, 1923.

BIGHAM, ENGLAR & JONES,
Proctors for Libellants-Appellants.

HUNT, HILL & BETTS,
Proctors for Respondents-Appllees.

Stipulation as to Record.

4258 UNITED STATES CIRCUIT COURT OF APPEALS,

FOR THE THIRD CIRCUIT.

No. 50—October Term, 1923.

CITRO CHEMICAL COMPANY OF AMERICA,
Appellant,

—against—

Steamship "WILLDOMINO," her engines, boilers, etc.,
Appellee.

4259

No. 51—October Term, 1923.

CHARLES PFIZER & COMPANY, INC.,
Appellant,

—against—

Steamship "WILLDOMINO," her engines, boilers, etc.,
Appellee.

No. 52—October Term, 1923.

4260

CHARLES PFIZER & COMPANY, INC.,
Appellant,

—against—

CONVOY STEAMSHIP COMPANY, LTD., owner of the Steamship "WILLDOMINO," her engines, boilers, etc.,
Appellee.

IT IS HEREBY STIPULATED AND AGREED by and between the proctors hereto that all the testimony and other proofs adduced in the cause of the Citro

Stipulation as to Record.

Chemical Company of America, libellant-appellant, against the Steamship *Willdomino*, her engines, boilers, etc., respondent-appellee, shall constitute the transcript of record on appeal for the other two cases hereinabove mentioned, to-wit: 4261

CHARLES PFIZER & COMPANY, INC.,
Libellant-Appellant,

—against—

Steamship "WILLDOMINO," her engines, boilers, etc.,
Respondent-Appellee. 4262

CONVOY STEAMSHIP COMPANY, LTD.,
Libellant-Appellant,

—against—

Steamship "WILLDOMINO," her engines, boilers, etc.,
Respondent-Appellee.

Dated, New York, October 10th, 1923. 4263

BIGHAM, ENGLAR & JONES,
Proctors for Libellants-Appellants.

HUNT, HILL & BETTS,
Proctors for Respondents-Appellees.

Clerk's Certificate.

4261

UNITED STATES DISTRICT COURT,

DISTRICT OF NEW JERSEY.

United States of America,
District of New Jersey—ss.:

I, GEORGE T. CRANMER, Clerk of the District Court of the United States of America for the District of New Jersey, do hereby certify that the foregoing is a transcript of the record of the said District Court in the above-entitled matter as
4265 agreed on by the parties.

IN TESTIMONY WHEREOF, I have caused the seal of the said Court to be hereunto affixed at the City of Trenton, in the District of New Jersey, this day of November, in the year of our Lord one thousand nine hundred and twenty-three and of the Independence of the said United States the one hundred and forty-eighth.

GEORGE T. CRANMER,
Clerk.

(Seal)

4266

UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT, OCTOBER TERM, 1923

No. 3036 (List No. 50)

CITRO CHEMICAL CO., Appellant,

vs.

S. S. WILLDOMINO," etc., Appellee

Appeal from the District Court of the United States for the District of New Jersey

And now, to wit: This 8th day of January, A. D. 1923, it is ordered that Hon. Hugh M. Morris, District Judge for the District of Delaware, be, and he is hereby assigned to sit in above case in order to make a full court.

Victor B. Woolley, Circuit Judge.

Endorsements: 3036. Order assigning Hon. Hugh M. Morris for argument. Received and filed Jan. 8, 1924. Saunders Lewis, Jr., Clerk.

UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT, OCTOBER TERM, 1923

No. 3037 (List No. 51)

CHAS. PFIZER & CO., Appellant,

vs.

STEAMSHIP "WILLDOMINO," Appellee

Appeal from the District Court of the United States for the District of New Jersey

And now, to wit: This 8th day of January, A. D. 1923, it is ordered that Hon. Hugh M. Morris, District Judge for the District of Delaware, be, and he is hereby assigned to sit in above case in order to make a full court.

Victor B. Woolley, Circuit Judge.

Endorsements: 3037. Order assigning Hon. Hugh M. Morris for argument. Received and filed Jan. 8, 1924. Saunders Lewis, Jr., Clerk.

UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT, OCTOBER TERM, 1923

No. 3038 (List No. 52)

CHAS. PFIZER & CO., Appellant,

vs.

CONVOY STEAMSHIP CO., Owner, etc., Appellee

Appeal from the District Court of the United States for the District of New Jersey

And now, to wit: This 8th day of January, A. D. 1923, it is ordered that Hon. Hugh M. Morris, District Judge for the District of Delaware, be, and he is hereby assigned to sit in above case in order to make a full court.

Victor B. Woolley, Circuit Judge.

Endorsements: 3038. Order assigning Hon. Hugh M. Morris for argument. Received & filed Jan. 8, 1924. Saunders Lewis, Jr., Clerk.

IN THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT

No. 3036, October Term, 1923

CITRO CHEMICAL CO

v.

S. S. "WILLDOMINO," etc.

No. 3037, October Term, 1923

CHAS. PFIZER & CO.

v.

S. S. "WILLDOMINO," etc.

No. 3038, October Term, 1923

CHAS. PFIZER & CO.

v.

CONVOY STEAMSHIP CO., LTD., etc.

And afterwards, to wit, on the eighth day of January, 1924 come the parties aforesaid by their counsel aforesaid, and this case being

called for argument sur pleadings and briefs, before the Honorable Victor B. Woolley and Honorable J. Warren Davis, Circuit Judges, and Honorable Hugh M. Morris, District Judges, and the Court not being fully advised in the premises, takes further time for the consideration thereof.

And afterwards, to wit, on the fourth day of June, 1924, come the parties aforesaid by their counsel aforesaid, and the Court, now being fully advised in the premises, renders the following decision:

IN THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT

No. 50, October Term, 1923

CITRO CHEMICAL COMPANY OF AMERICA, Appellant,

v.

Steamship "WILLDOMINO," HER ENGINES, BOILERS, &c., Appellee

No. 51, October Term, 1923

CHARLES PFIZER & COMPANY, INC., Appellant,

v.

Steamship "WILLDOMINO," HER ENGINES, BOILERS, &c., Appellee

No. 52, October Term, 1923

CHARLES PFIZER & COMPANY, INC., Appellant,

v.

CONVOY STEAMSHIP COMPANY, LTD., Owner of the Steamship "WILLDOMINO," Her Engines, Boilers, &c., Appellee

Appeals from the District Court of the United States for the District of New Jersey

Before Woolley and Davis, Circuit Judges, and Morris, District Judge

MORRIS, District Judge: In June 1920 the S. S. Willdomino, lying at Messina, Italy, took on board for transportation to New York 503 casks of citrate of lime in good order and condition of which Citro Chemical Company of America and Charles Pfizer & Company, Inc., were the owners and consignees of 168 and 335 casks respectively. When delivery was tendered at New York the merchandise was so damaged that the owners refused to receive it, abandoned it to the ship and filed separate libels against the ship to recover their loss. Convoy Steamship Company, Ltd., appeared as claimant,

filed stipulations for value and a cross libel against the Pfizer Company to recover for the 335 casks the freight money which, because of the damage, that company had refused to pay. The court below tried the cases together, dismissed the libels against the ship and on cross libel entered a decree against the Pfizer Company for the amount of its freight money. An appeal to this court has been taken from each of those decrees.

After leaving Messina and before arriving at New York the Willdomino put in at Gibraltar, Lisbon, Ponta Delgada in the Azores, North Sydney Nova Scotia, and at Halifax. While proceeding from North Sydney to Halifax on July 24th she struck a reef or submerged object and tore a large hole in her bow. Water entered and almost completely filled lower No. 1 hold in which the citrate of lime was stowed. With some assistance from a salvage tug the vessel arrived at Halifax. After certain examinations had been there made and sand ballast put on the stern to raise the bow somewhat she left Halifax in convoy of a tug and arrived in New York on August 7th. The cargo other than the citrate of lime was discharged. She then proceeded, August 25th, to dry dock for repairs. While repairs were under way the steamer was shifted from dry dock to wet dock and back again several times. With each shift the water ran out of or into the hold in which libellants' goods were stowed. Repairs were completed on October 2d. Thereupon the citrate of lime was tendered to the consignees. It was then almost a total loss.

The decisive issues are those raised by the separate and distinct defenses set up in the answers of the claimant. The first of those defenses is that the damage, if any, to the merchandise of the libellants was due to one or more of the causes from the consequences of which the ship and carrier were made exempt by the bill of lading which provides in part:

"It is mutually agreed as follows: First: The Ship and Carrier shall not be liable for loss or damage occasioned by

"the perils of the seas or other waters, * * *

"unseasworthiness of the ship even existing at time of shipment or sailing on the voyage, provided the owners, have exercised due diligence to make the vessel seaworthy * * *

"collision, stranding, or other accidents of navigation of whatsoever kind, even when occasioned by the negligence, default or error in judgment of the pilot, master, mariners, or other servants of the shipowner, * * *

"nor for any loss or damage occasioned by causes beyond his control. * * *."

The claimant asserts that those provisions are valid—some at common law and the remainder by virtue of Sec. 2 of the Harter Act.

The second affirmative defense is that the damage to the merchandise of the libellants was due to the stranding of the vessel;

that the libellants have failed to establish that the stranding was due to negligent navigation but that if they have so shown the claimant has proved that it, the claimant, exercised "due diligence to make the said vessel in all respects seaworthy and properly manned, equipped and supplied" and that consequently the ship and the claimant are exempt from liability to the libellants by reason of the third section of the Harter Act.

A third distinct defense is the stipulation of the bill of lading limiting liability to $100 per package which reads thus:

"Third. The value of package receipted for as above does not exceed the sum of $100, unless otherwise stated herein, on which basis the rate of freight is adjusted."

The libellants contend that the stranding of the Willdomino was due to negligence in navigation and that the stipulations in the bill of lading against liability for negligence were void and of no effect; that the owner of the vessel did not "exercise due diligence to make the said vessel in all respects seaworthy and properly manned, equipped and supplied" in that, by direction of the owner, as libellants contend, she sailed from Gibraltar, from Lisbon, and from Ponta Delgada without sufficient fuel and that, consequently, the third section of the Harter Act is without application. The libellants likewise contend that the ship in going to Lisbon, to Ponta Delgada and to North Sydney deviated from the voyage specified in the bills of lading and that thereby the bill of lading clause limiting liability to $100 per cask and also all exemptions from liability created by law or contained in the bills of lading were nullified and the vessel made absolutely liable as at common law for the safe transportation and proper delivery of its cargo. The libellants further contend that even if damage to the goods was brought about by a cause from the effect of which the carrier was validly exempted it was nevertheless the duty of the carrier to exercise reasonable care and diligence to protect the goods from further or additional damage and this, it asserts, the carrier failed to do.

In the matter of the cross libel against it for freight the Pfizer Company asserts that at the time delivery of its consignment was tendered its goods had been so far damaged that they were no longer in specie and that consequently it is without liability for freight.

The Willdominio was a general ship engaged in the common carriage of merchandise for hire. A carrier of goods by water, like a carrier by land, is an insurer and, although no actual blame is imputable to it, is absolutely liable, in the absence of a special contract or statute limiting its liability, for all damage sustained by the goods entrusted to its care unless the damage is occasioned by the act of God, the public enemy, the public authority, the fault of the shipper or the inherent nature of the thing shipped. Clark v. Barnwell, 12 How. 272, 279; 24 R. C. L. 1312. The law, however, recognized the right of the carrier to limit in many particulars its common law liability by special agreement or stipulations in the bill of lading. But in America it was established that a common carrier

by sea could not so exempt itself from liability to the owner of cargo for damage arising from the negligence of the master or crew of the vessel. The Jason, 225 U. S. 32, 49. To meet the ever increasing attempts further to limit the liability of the vessel and her owners by inserting in bills of lading stipulations against losses arising from unseaworthiness, bad stowage, negligence and other causes of liability by which the common law responsibility of carriers by sea was being frittered away the Harter Act* (27 Stat. 445; Comp. Stat. [1916] Secs. 8029-8031) was passed. It was designed to fix the relations between the cargo and the vessel and to prohibit contracts restricting the liability of the vessel in certain particulars. The Delaware, 161 U. S. 459. By the first section of that act contractual clauses whereby the carrier "shall be relieved from liability for loss or damage arising from negligence, fault or failure in proper loading, stowage, custody, care or delivery" of any of the cargo are made null and void while the last clause of the second section makes unlawful any agreement "whereby the obligations of the master, officers, agents or servants to carefully handle and stow her cargo and to care for and properly deliver same, shall in any wise be lessened, weakened or avoided." These two sections, in their general purport, so far as respects the care and delivery of the cargo, are not essen-

*An act relating to navigation of vessels, bills of lading, and to certain obligations, duties, and rights in connection with the carriage of property.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it shall not be lawful for the manager, agent, master, or owner of any vessel transporting merchandise or property from or between ports of the United States and foreign ports to insert in any bill of lading or shipping document any clause, covenant, or agreement whereby it, he, or they shall be relieved from liability for loss or damage arising from negligence, fault, or failure in proper loading, stowage, custody, care, or proper delivery of any and all lawful merchandise or property committed to its or their charge. Any and all words or clauses of such import inserted in bills of lading or shipping receipts shall be null and void and of no effect.

Sec. 2. That it shall not be lawful for any vessel transporting merchandise or property from or between ports of the United States of America and foreign ports, her owner, master, agent, or manager, to insert in any bill of lading or shipping document any covenant or agreement whereby the obligations of the owner or owners of said vessel to exercise due diligence, properly equip, man, provision, and outfit said vessel, and to make said vessel seaworthy and capable of performing her intended voyage, or whereby the obligations of the master, officers, agents, or servants to carefully handle and stow her cargo and to care for and properly deliver same, shall in any wise be lessened, weakened, or avoided.

Sec. 3. That if the owner of any vessel transporting merchandise or property to or from any port in the United States of America shall exercise due diligence to make the said vessel in all respects seaworthy and properly manned, equipped, and supplied, neither the vessel, her owner or owners, agent, or charterers shall become or be held responsible for damage or loss resulting from faults or errors in navigation or in the management of said vessel nor shall the vessel, her owner or owners, charterers, agent, or master be held liable for losses arising from dangers of the sea or other navigable waters, acts of God, or public enemies, or the inherent defect, quality, or vice of the thing carried, or from insufficiency of package, or seizure under legal process, or for loss resulting from any act or omission of the shipper or owner of the goods, his agent or representative, or from saving or attempting to save life or property at sea, or from any deviation in rendering such service.

tially different. Calderon v. Atlas Steamship Company, 170 U. S. 272, 277. The first remaining part of the second section of the act enables a vessel and its owner to obtain, by contract, relief from absolute liability for lack of seaworthiness, but not from the obligation "to exercise due diligence, properly equip, man, provision and outfit said vessel, and to make said vessel seaworthy and capable of performing her intended voyage." By virtue of this section liability for losses to cargo caused by unseaworthiness may be contracted away provided the owner uses due diligence to make the vessel seaworthy but liability for loss to cargo caused by unseaworthiness arising from lack of diligence on the part of the owner cannot be contracted away. The Southwark, 191 U. S. 1; The Carib Prince, 170 U. S. 655.

By the third section of the Harter Act Congress provided that if the owner of a vessel shall exercise due diligence in making his ship "in all respects seaworthy and properly manned, equipped and supplied" neither the owner nor the ship shall be liable to the shipper for damage to cargo resulting from the navigation or management of the vessel, however faulty. The Irrawaddy, 171 U. S. 187. This section, unlike section 2, is self-executing. United States v. Hamburg-Amerikan, etc. Gesellschaft, 212 Fed. 40, 44. Again section 2 deals with liability for damage caused by lack of seaworthiness, while section 3 deals with liability for damage caused by "faults or errors in navigation or in the management of said vessel." The burden is on the ship owner setting up exemption from liability under the third section of the act to prove that he exercised due diligence to make the vessel in all respects seaworthy and properly manned, equipped and supplied. The Wilderoft, 201 U. S. 378; The Southwark, 191 U. S. 1. In Int. Nav. Co. v. Farr & Bailey Mfg. Co., 181 U. S. 218, 226, the Supreme Court said:

"* * * even if the loss occur through fault or error in management, the exemption cannot be availed of unless the vessel was seaworthy when she sailed, or due diligence to make her so had been exercised, and it is for the owner to establish the existence of one or the other of these conditions."

It follows, we think, that if the carrier fails to meet that burden he is liable for damage to the cargo resulting from negligence of the master and crew in the navigation or management of the vessel and the carrier is so liable wholly without regard to whether or not there was any causal connection between the lack of due diligence to make the ship seaworthy in all respects and the loss caused by the negligence in navigation or in the management of the vessel.

How stand the cases at bar when measured by the foregoing principles of law? The first affirmative defense is exemption from liability by reason of the stipulations in the bills of lading. Of these stipulations the most pertinent, in our view, are (1) that pertaining to the unseaworthiness of the ship; and (2) that pertaining to negligence in the navigation or management of the vessel. We think the former was authorized by section 2 of the Harter Act and was, con-

sequently, valid. A careful examination of the evidence, however, has convinced us that the proximate cause of the stranding of the Willdomino, from which libellants' original loss resulted, was not unseaworthiness of the ship but that if the stranding of the vessel resulted from fault such fault lay in negligent navigation or management as to which the claimant can here derive no relief from the further stipulation in the bill of lading in that in so far as that stipulation may be in conflict with the third section of the Harter Act it is obviously null and void and in so far as it is co-extensive with or narrower than the Harter Act it is useless, as the third section of the Harter Act is self-executing. Hence, claimant's exemption from liability for loss occasioned by negligent navigation or management of the vessel will be considered in connection with claimant's second affirmative defense in which the third section of the Harter Act is relied upon.

The underlying principles of law applicable to the second affirmative defense have already been considered. The issues of fact arising with respect to that defense are (a) was the Willdomino in all respects seaworthy and properly manned, equipped and supplied; if not (b) had the claimant exercised due diligence to make her so; if the answer to (b) is nay, then (c) did the original damage to libellants' merchandise result from faults or errors in navigation or in the management of the vessel.

The only respect in which the libellants contend that the claimant has failed to establish that the Willdomino was in all respects seaworthy and properly manned, equipped and supplied is in the matter of sufficiency of fuel. The time at which the ship must have been seaworthy and properly equipped and supplied or due diligence have been exercised to make her so was at the beginning of her voyage. The Wilderoft, 201 U. S. 378, 386; Int. Nav. Co. v. Farr & Bailey Mfg. Co., 181 U. S. 218, 226. The voyage from Messina to New York was either an unbroken voyage or it was a voyage divided into stages. If the former assumption is the correct one due diligence must have been exercised to have had on board the vessel at the beginning of the voyage a supply of fuel adequate and proper to complete the whole voyage. If, however, the second assumption is the correct one like diligence must have been exercised to have had on board at the beginning of each stage of the voyage a supply of fuel adequate and proper to complete the stage of the voyage entered upon. Thin v. Richards & Co., (1892) 2 Q. B. 141, 144; The Vortigern (1899) Prob. 140. The failure to exercise the proper diligence in this respect at the beginning of any stage, whether the damage or loss to cargo resulting from faults or errors in navigation or management of the vessel occurred during that stage or not, (see The Ethel, Fed. Cas. No. 4540) would deprive the owner of the exemption conditionally provided by Sec. 3 of the Harter Act for that section is not satisfied by anything less than due diligence to make the vessel seaworthy and properly supplied and equipped for the whole and so for each and every stage of the voyage contemplated by the parties and specified in the bill of lading.

Did the claimant meet these requirements or either of them?

The Willdomino left Messina with only 569 tons of coal. That was not sufficient under any circumstances to carry her from Messina to New York. At Gibraltar, a customary coaling port for vessels bound from Mediterranean ports to New York and for which port the vessel sailed from Messina, 400 tons were taken on board. She left Gibraltar for Lisbon with 756 tons in her bunkers. That amount was unquestionably adequate for that stage of the voyage. From Lisbon she cleared direct for New York with but 651 tons. We think this was inadequate. Lisbon is 2,905 miles distant from New York. On the previous eastward voyage from Norfolk to Marseilles, heavily laden, but sailing with the Gulf Stream, and in better than average weather, the daily consumption of coal exceeded, slightly, 42 tons while the average speed was $7\frac{3}{4}$ miles per hour. The Gulf Stream added about one-half knot per hour on the east bound voyage and would lessen to an equal extent the speed on the west bound voyage. This would make the estimated average speed on the voyage from Lisbon to New York $6\frac{3}{4}$ miles per hour, but the ship was not so heavily laden. The claimant, however, produced some oral evidence that the average speed for the last three preceding voyages had been $9\frac{1}{2}$ to $9\frac{3}{4}$ knots per hour with a daily coal consumption of 42 to 43 tons This was shown to be based on an average speed of 9.1 knots for the preceding voyage from Norfolk to Marseilles while the log books for that voyage, which were in evidence, showed that the average speed was only $7\frac{3}{4}$ miles. The claimant refused to produce the log books for the two preceding voyages. These circumstances left the oral testimony wholly unable to withstand either the inference expressed by the maxim falsus in uno falsus in omnibus or the presumption that the suppressed log books, if produced, would have been unfavorable to claimant's case. Kirby v. Tallmadge, 160 U. S. 379. The Bolton Castle, 250 Fed. 463. Consequently the testimony fixing an average for the three preceding voyages must be ignored. But at Lisbon the vessel had data other than the average speed of the preceding voyage, less the Gulf Stream differential, upon which to estimate the average speed to New York. She had come from Messina to Gibraltar at an average speed of 8.865 miles per hour and from Gibraltar to Lisbon at 7.35 miles thus making the average speed from Messina to Lisbon 8.49 miles. But before the last figure could be used as a basis for estimating the amount of coal necessary to make the ship seaworthy upon leaving Lisbon on a voyage to New York one half mile would have to be deducted on account of the Gulf Stream. Confronted with the average of $7\frac{3}{4}$ miles for the preceding voyage which, owing to the Gulf Stream differential, he could not reasonably hope to exceed even with a more lightly laden vessel and confronted with the fact that an average of but 7.35 miles had been made from Gibraltar to Lisbon an estimate for fuel based upon an expected speed exceeding $7\frac{3}{4}$ miles per hour would not have been justified. That the average speed actually made during the five days intervening between the departure of the vessel from Lisbon and the accident to her machinery was only 7.39 miles is an interesting fact but it was neither available to the vessel at Lisbon nor needed to indicate the probable average speed

on the voyage to New York. At a speed of 7¾ miles it it would take 15,618 days for the voyage with a daily coal consumption of at least 42 tons or an aggregate of 656 tons. Yet she had not that amount in her bunkers when she left Lisbon. Had a speed of 8 miles per hour been used as a basis for the calculations 635 tons would have been required. The margin of safety between that and the 651 tons with which she left Lisbon was negligible. To be reasonably fit to make a voyage a ship must have a reasonable margin of safety in her supply of fuel. Experience, as disclosed by the testimony, has shown that for vessels crossing the North Atlantic the proper margin of safety is 20% to 25% more than that reasonably expected to be used under normal conditions. It is customary for ships beginning such voyage to carry a fuel supply which provides that margin of safety. Hence, a ship setting out upon such voyage with substantially less than that amount of fuel is, at least in so far as the third section of the Harter Act is concerned, neither seaworthy nor properly equipped and supplied. Upon breaking ground at Lisbon the Willdomino neither had nor approached in its fuel supply the usual and customary margin of safety. Consequently, she was not reasonably fit to carry her cargo throughout the stage of the voyage she then entered upon and was not seaworthy. Int. Nav. Co. v. Farr & Bailey Mfg. Co., 181 U. S. 218. It is true that a printed provision of the bill of lading gave to the vessel the liberty "to call at intermediate ports or any port or ports in or out of the customary route in any order to receive and discharge coal" and that another reads thus:

"Eighth. The ship has liberty of filling up and/or bunkering at any port or ports in or out of the way."

These provisions were modified by the following written amendment:

"Filling up only in ports on the way westwards of [to] New York."

The ship's original liberty of calling at "any port or ports in or out of the customary route" to receive coal or of "bunkering at any port or ports in or out of the way" was not affected by the amendment. But we think that neither the bunkering clause nor the fact that there were ports at which she might have called to obtain fuel affects the question of her seaworthiness for the voyage she entered upon on leaving Lisbon. The test of seaworthiness is made with respect to the voyage on which a vessel sets out, 24 R. C. L. 1328, and, as we have seen, in contemplation of the whole of that voyage. Every voyage must have a termius, a quo and a termius ad quem. Marsh Ins. b. 1, c. 7, s. 1-5. This principle is equally true whether it be considered with respect to insurance or to undertakings between ship owner and shipper. See The Calendonia, 157 U. S. 124, 131. That the terminus a quo of the voyage in question was Lisbon is obvious. That the termius ad quem was New York cannot be made clearer than by quoting from claimant's brief, p. 44, where it is said: "She cleared for New York and both logs indicate that the

voyage was from Lisbon to New York." There is no evidence that there is a port at which it is customary and usual for vessels on a voyage from Lisbon to New York to call for coal. The provisions in the bill of lading authorizing the vessel "to call at intermediate ports or any port or ports in or out of the customary route in any order to receive and discharge coal" and to bunker "at any port or ports in or out of the way" did not release the claimant from its duty to exercise due diligence in making the ship seaworthy in all respects for the definite voyage upon which she sailed. Hurlburt v. Tenure, 76 Fed. 587, 590-591, and as affirmed (C. C. A. 2) 81 Fed 208. We think that notwithstanding the provisions in the bill of lading the Willdomino was unseaworthy upon leaving Lisbon.

When five days out from Lisbon an accident to the machinery, not attributable as we see it to any lack of care or diligence, made it necessary to blank off the high pressure turbine and, propelled by the low pressure turbine, to put into Ponta Delgada in the Azores for repairs. That port was not equipped to make the needed repairs and it was decided to complete the voyage on the low pressure turbine alone. Two hundred and fifty tons of coal were taken aboard and the vessel set out with an aggregate of 629 tons. It was anticipated by the master and chief engineer that she would make 6½ knots per hour and consume 50 tons of fuel per day. The distance from Ponta Delgada to New York is 2,290 miles. At the estimated speed it would take 14 2/3 days to complete the voyage and without any allowance for a margin of safety 733 tons of fuel. Five or six days out of Ponta Delgada, it being then manifest that the ship did not have enough coal to take her into New York, her course was changed towards North Sydney where she arrived with 62 tons of coal on board. Her average speed had been 6¼ miles per hour and her daily coal consumption upwards of 49 tons. The claimant asserts that the insufficiency of the fuel to reach New York was due to unanticipated retarded speed brought about by head winds, currents and the slip of the propeller. We think the log books do not support these contentions. No unusual weather or current conditions are noted. The slip of the propeller had been as great at times before the arrival at Ponta Delgada as it was at times after the departure. Even more enlightening and convincing, however, is the fact that had the speed been that which the vessel made after leaving Lisbon and before the high pressure turbine was blanked off, 7.39 miles per hour, for which there could have been no justifiable expectation, the voyage from Ponta Delgada to New York would have required 12.91 days and, so, more than the amount of coal with which the Willdomino left Ponta Delgada. We think that upon leaving that port the vessel was not seaworthy for the voyage to New York.

The acts of the vessel in leaving Gibraltar, Lisbon and Ponta Delgada with an inadequate supply of fuel is attributable as a matter of law to the owners of the vessel. Int. Nav. Co. v. Farr & Bailey Mfg. Co., 181 U. S. 218; British & Marine Ins. Co. v. Kilgour S. S. Co., 184 Fed. 174, 177. It is likewise so attributable in fact. While

the Willdomino lay at Gibraltar the master received from the claimant the following cablegram:

"Your coal requirements excessive cost of bunkers Gibraltar very high make accurate measurement remaining bunkers if not enough to make North Sydney take only enough to reach there cut down consumption in every way if fuel runs short reaching coast cut out one boiler."

As the vessel was not seaworthy when she sailed from Lisbon or from Ponta Delgada and as the claimant did not exercise due diligence to make her seaworthy before leaving those ports the conditional exemption provided by section 3 of the Harter Act cannot be availed of if the damage to the cargo occurred through the fault or error in navigation.

The burden of proving that the stranding was due to negligence is upon the shipper. Clark et al. v. Barnwell, 12 How. 279. Though the master was an experienced navigator who had had a sea experience of twenty-three years, who had held a master's certificate for twelve years and who was doing at the time of the stranding everything that he thought necessary yet in view of the evidence we are constrained to conclude that the stranding was due to negligent navigation. The Willdomino left Sydney for Halifax at about one o'clock on July 23d. The master had never been over the course from Sydney to Halifax though he had been from Lewisburg to Halifax and from St. Johns to Halifax. The currents along the coast off which his course lay are treacherous. The coast is very tortuous and rugged and is recognized as a dangerous one. The only bearing obtained after leaving Sydney until the vessel stranded was from Scatari Lighthouse at 5.45 P. M. At 8 P. M. she ran into a thick fog which continued throughout the night and until after the stranding. After entering the fog speed was reduced and the whistle blown. The master who was proceeding by dead reckoning and who believed that the vessel was on her course 20 miles off shore took no sounding until 4.30 A. M. As that sounding showed 91 fathoms it confirmed, as the master thought, his judgment as to the position of the vessel and no more soundings were made. Two hours later the vessel stranded about seven miles off shore. While there was some suggestion in the evidence that the object struck was a wreck or other uncharted submerged object a careful examination of the evidence convinces us that there is no room seriously to doubt that the stranding occurred on a charted reef. We think peculiarly applicable to these circumstances the words of Judge Benedict in The Alpin, 23 Fed. 815, 818:

"* * * He [the master] * * * knew or ought to have known, that he might be under the influence of a current running towards the land. Moreover the weather was thick, and he knew that he did not know his position, and that an approach to the land would be indicated by the soundings. Under such circumstances common prudence required him to sound. Had he observed this common and, under the circumstances, necessary precaution, the

lead would have informed him that he had been mistaken as to his position, and was sailing close to the lee shore; and with this knowledge he could have prevented the accident that shortly occurred."

Other cases to the like effect are The Montana, 17 Fed. 377; The City of Para, 44 Fed. 689; Union Ins. Co. v. Dexter, 52 Fed. 152. The Express, 48 Fed. 323. The claimant contends, however, that the master had no reason to doubt that he was on his course particularly after taking a sounding at 4.30 A. M. and finding 91 fathoms and that consequently he was not negligent in failing to take other prior or subsequent soundings. But one sounding affords little information and, standing alone, may be deceptive. It is only by comparison of successive soundings that the position of the vessel can be ascertained with reasonable certainty. Again while it is quite true that negligence must be determined upon the facts as they appeared at the time and not by a judgment from actual consequences which were then not to be apprehended by a prudent and competent man, yet as was said by the Supreme Court in The Germanic, 196 U. S. 589, 596, " * * * it is a mistake to say, as the petitioner does, that if the man on the spot, even an expert, does what his judgment approves, he cannot be found negligent. The standard of conduct, whether left to the jury or laid down by the court, is an external standard, and takes no account of the personal equation of the man concerned. The notion that it 'should be coextensive with the judgment of each individual,' was exploded, if it needed exploding, by Chief Justice Tindal, in Vaughan v. Menlove, 3 Bing. N. C. 468, 475. And since then, at least, there should have been no doubt about the law. Commonwealth v. Pierce, 138 Massachusetts, 165, 176. Pollock, Torts, 7th ed., 432."

We think that the stranding resulted from the failure to take soundings; that such failure was a fault or error in navigation or in the management of the vessel and that Sec. 3 of the Harter Act cannot be availed of to exempt the claimant from liability for the damage to libellants' goods occasioned by the stranding.

It was the duty of the carrier to exercise reasonable care, diligence and activity in preserving from further damage any portion of the cargo that had been damaged by the stranding so far as it could be done consistently with the carrier's duty to the owners of other portions of the cargo, 24 R. C. L. 1306, Harter Act, Sec. 1. Propeller Niagara v. Cordes et al., 21 How. 7, 26. The entire damage to the lime was brought about either by the stranding alone or by the stranding and by subsequent fault or failure properly to care for it. If it was impractical, reasonably, to do anything to protect the lime between July 24th, when the hold in which it was stowed was flooded as a result of the stranding, and October 2d, the date upon which the repairs to the vessel were completed and delivery of the lime tendered, that is, if there was no negligence, fault or failure in the proper care or delivery of the lime during that period, the proximate cause of all the damage sustained by it was the negligent navigation of the vessel. If, however, during that period there was a lack of proper care to protect it

from continuing and additional damage such lack of care was the proximate cause of such additional damage. We think there was such lack of care. It is probably true that while the water remained in the hold it was not practical and that the claimant was not required to employ divers to remove the casks which had a weight of 1,500 to 1,700 pounds each. It is probably true that the hole torn in the bow of the vessel was of such size and shape that it was not practical, while the vessel remained in the water, to plug, cover or patch the hole in a way usual with smaller holes. It probably was not practical to exclude the water from the hold by compressed air. But there was another method both practical and reasonable, so far as we can see, by which the lime could have been protected from ever increasing damage. On August 25th the vessel went into dry dock for an examination for repairs. As the remainder of the vessel's cargo had then been discharged and as the ship's power and equipment with which the lime had been loaded and stowed at Messina was available for its removal from the hold while the vessel was in the dray dock it could have been and, as we see it, should then have been removed from the hold that was open to the sea and placed on deck or in an undamaged hold. It could then have been delivered as soon as the vessel came from the dry dock the first time. Instead it was permitted to remain, wholly unprotected, in the damaged hold until the repairs to the vessel were completed on October 2d and to be reimmersed in the interim during the periods the vessel was not in the dry dock. In this we think there was lack of proper care. But as the claimant is liable for the entire damage to the goods, whether caused by the negligent navigation or by the subsequent lack of care or by both it is unnecessary to ascertain the portion thereof attributable to each cause.

The liability of the claimant is limited to the value of the goods fixed in the bill of lading, $100 per cask, unless that limitation was nullified by an unauthorized deviation of the vessel from her legitimate and contemplated course. Was there deviation? The libellants contend that there was, both in going to Lisbon for cargo and in turning off the course from Ponta Delgada to New York and going to North Sydney for coal. It has been long settled that in every contract of affreightment the carrier by water impliedly undertakes to proceed, without unnecessary deviation, by the direct and usual route to the port of delivery unless authorized by the contract to do otherwise. 24 R. C. L. 1336, Constable v. National Steamboat Co., 154 U. S. 51, 66, and that any unauthorized deviation of the vessel from her legitimate and contemplated course nullifies exemptions from liability contained in the bill of lading under which the cargo was shipped. The Sarnia, 278 Fed. 459, 463; The Citta di Messina, 169 Fed. 472, 474-475. The parts of the bills of lading pertinent to the question of deviation are the printed clauses:

"Shipped by, or received for shipment, in apparent good order and condition from Ferd Baller & Co. to be transported by the good Steamship Willdomino Captain * * * to New York with liberty to call at Intermediate Ports or any port or ports in or out

of the customary route in any order to receive and discharge coal, cargo, passengers, and for any other purposes, * * *.

"Eighth. The ship has liberty of filling up and or bunkering at any port or ports in or out of the way."

and the written interpolation

"Filling up only in ports on the way westwards of [*to*] New York."

In so far as they are in conflict the printed provisions must give way to the written. The first question thereby presented is whether Lisbon, where the ship went for cargo only, is a port on the way westward from Messina to New York within the meaning of the written interpolation. But this question was not presented to the trial court and, consequently, will not be considered here. Badger v. Ranlett, 106 U. S. 255, 259. H. W. Paine & Co. v. Manistee Tanning Co., 279 Fed. 340, 2 R. C. L. 69.

The next question is whether the vessel's putting in at Sydney wa sauthorized by the provisions of the bill of lading or was an unauthorized deviation of the vessel from her legitimate and contemplated course. Though the liberty granted or reserved to the carrier in the matter of bunkering by the bills of lading is broad it is not unlimited. In Swift & Co. v. Furness, Withy & Co., 87 Fed. 345, the bill of lading recited that "the vessel 'is lying at the port of Boston, and bound for London,' * * *. With liberty to sail with or without pilots, to make deviation, and to call at any intermediate port or ports for any purpose, * * *." In considering the word "deviation" so used the court said it "must be held to give to the owner only a limited right of departure from the voyage; and the limits must be those of necessity, and reasonable regard for the rights of both the shipper and carrier, growing out of the nature of the principal contract * * *. This clause refers to the voyage contemplated by the parties, and to deviations reasonably incident thereto, not to an additional voyage arbitrarily made by the order of the owner." In The Blandon, 287 Fed. 722, the voyage was from New York to Valencia "with liberty to call at any port or ports in or out of the customary route in any order." The court, in determining whether that clause justified the ship's calling at Philadelphia to take on cargo, said:

"It is said that the clause will allow only reasonable deviations, and this is indeed true, since such a clause is to be construed in its context."

It was there held that though the clause "might not allow a side voyage to Tampico or Galveston" and "would not permit a call at Rio or Montevideo" yet it did justify the ship's putting in at Philadelphia which was "out of the customary route." In the case of The Emelia S. de Perez, 287 Fed. 361, affirmed 288 Fed. 1019, it was said that "the question is one of degree and reasonable conduct." But the provisions in a bill of lading, at least unless they expressly

or by unavoidable implication provide otherwise, obviously relate to and consequently must be construed with reference to the voyage in contemplation of the ship owner and shipper and must, therefore, be restricted to the business and necessities of the ship pertaining to that voyage. Consequently it has been held that though under the bill of lading the vessel is given liberty "to proceed to and stay at, any ports or places whatsoever (although in a direction contrary to, or out of, or beyond, the route to said port of discharge), once or oftener, in any order, backwards or forwards, for the purpose of receiving and delivering coals, cargo or passengers, or for any other purpose and all such ports, places and sailings shall be deemed within the intended voyage," yet that a stop made at a port near to the route and to be passed in the voyage contemplated but for the purpose of another voyage is not justified by the bill of lading. Austrian Union S. C. Co. v. Calafiore, 194 Fed. 377 (C. C. A. 5); South Atl. S. S. Line v. London-Savannah Naval S. Co., 255 Fed. 306.

In the light of the principles established by the preceding cases the question of whether or not, under the terms of a bill of lading, a departure from the usual course of the voyage is or is not an authorized and justified deviation is a question of fact in each case. Pertinent to such question are the customary course between the port of loading and the port of discharge, the usual ports of call, the location of the port in question, the purpose for which the vessel entered that port and the circumstances under which she entered. Sydney is several hundred miles nearer the Mediterranean ports than is New York. It is not on the usual and customary course. The distance from the Mediterranean ports to New York by way of Sydney is upwards of 300 miles greater than the usual and customary course. Though it is not disputed that the purpose for which the Willdomino went into Sydney was to obtain fuel, yet it is asserted by the libellants that the record discloses that the real purpose was to obtain fuel not solely to complete the voyage to New York but for the succeeding voyage out of New York as well and that the master, realizing that the open consummation of such a purpose would be a deviation, so contrived as to give the call at Sydney the appearance of a call at a port of refuge. If this contention of the libellants is sound the putting in to the port of Sydney was an unwarranted and unjustified deviation, Austrian Union S. C. Co. v. Calafiore, supra, without regard to whether or not the vessel was able to consummate its purpose for it is the purpose of the deviation and not the consummation of that purpose that is the test in the matter of deviation. What the real purpose in going to Sydney was cannot be determined by the amount of coal which was there taken on board for the reason that a strike at that port made it impossible to obtain more than 62 tons, which, with that then remaining on board, 62 tons, was sufficient to take the vessel only to Halifax. Hence, the vessel's purpose in going into Sydney is not capable of direct and demonstrative proof, but must be determined upon circumstantial evidence.

That it was the deliberate and continuing purpose not to take on board enough coal to carry the vessel to New York but only barely

enough to carry her to North Sydney is made certain almost to the point of demonstration by the contents of the cablegram sent by the owner to the master at Gibraltar and the three consecutive failures at Gibraltar, at Lisbon and at Ponta Delgada to take on board an adequate and proper amount of fuel for a voyage to New York. Those facts permit no inference other than that it was the intention of the claimant and of the master to have the vessel put in at Sydney. That it was their purpose to conceal this intent and to put in to Sydney as a port of refuge (though under a necessity created by themselves) is shown by the vessel's clearing at Lisbon for New York, the statements of the log books that she was proceeding on a voyage to New York, by the subsequent clearance of the vessel at Ponta Delgada for New York and the entries in the engineer's log book that she was proceeding towards New York, notwithstanding the fact that the vessel did not take on board at Ponta Delgada enough coal to reach New York even had the vessel made, under propulsion by the low pressure turbine alone, the average rate of speed which she had made during the five days out from Lisbon before the high pressure turbine was blanked off. That it is unreasonable to ask one to believe that the purpose of this plan and of the stop at Sydney was merely to obtain a proper amount of coal to complete the voyage to New York is shown not only by the preceding facts but also by the facts that if there had been acquired at Sydney an amount of coal proper to carry the vessel only to New York the added cost of the voyage by way of Sydney, notwithstanding the price of coal at that port was much less than at Gibraltar or Ponta Delgada, would have exceeded the cost of the usual voyage on the higher priced coal to have been had at Gibraltar or Ponta Delgada by upwards of $3,600; that if, on the other hand, had the vessel's bunkers been filled at Sydney the net saving on a voyage by way of Sydney over a voyage by the usual route would have been upwards of $8,200; that it was then difficult for foreign vessels to obtain coal at the port of New York and that the claimant had been obtaining its bunkers at Sydney and Halifax. The claimant has met this array of convincing circumstantial facts only with the contention that the estimates of coal made at the several ports were made in good faith to carry the vessel to the port of New York, that the master in taking coal aboard was not at all governed by the directions of the owner embodied in the cablegram, that the vessel changed her course towards Sydney only because it had then become demonstrated that the coal then in her bunkers was insufficient to take her into New York, that she put into Sydney merely to obtain the necessary supply for that purpose and that there is no evidence that it was her purpose there to obtain coal for a subsequent voyage. It is true that there is no direct evidence that it was the purpose to obtain at Sydney coal for a subsequent voyage but such fact may be established by circumstantial evidence as well as by direct evidence. In fact, motive, intent and purpose are rarely proved otherwise than by circumstantial evidence. The force of such evidence depends upon the number, tendency, agreement and conclusive nature of the circum-

stances adduced to establish a conclusion and upon whether or not there are inconsistent or opposing circumstances or whether all the circumstances unite in pointing to but one conclusion. In the present cases the circumstances established are, in our opinion, susceptible of explanation upon no reasonable hypothesis other than that the existence of the condition which made the stop at Sydney for coal a necessity was deliberately brought about to conceal the true purpose of entering that port, namely to obtain coal for the succeeding voyage. The departure from the course for such a purpose was an unauthorized and unjustifiable deviation. Moreover, a deviation of a vessel from her legitimate course is not justifiable when induced by the fault of the vessel. 24 R. C. L. 1336. The deviation to Sydney nullified the carrier's limitations of liability embodied in the bills of lading.

We think the claimant is not entitled to recover from Pfizer & Company the amount of its freight money on the 335 casks. The citrate of lime belonging to that company had an original value of about $179,000. It was so badly damaged that after being unloaded and abandoned to the ship by the consignee it was sold to the highest bidder for only $3,000. We think the record establishes conclusively that it was no longer in specie. That freight money is not recoverable under such circumstances is well established. Asfar & Co. v. Blundell (1896) 1 Q. B. Div. 123; Duthie v. Hilton, L. R. 4 C. P. 138. Scrutton on Charter Parties and Bills of Lading (11th Ed.) pp. 365, 379. The clause in the bill of lading "Freight on the goods and charges as per margin New York ship lost or not lost" does not, in our view, require the payment of freight for goods so damaged by the carrier's negligence that they cannot be delivered in specie.

The decrees of the court below must be reversed and the causes remanded with directions to assess the libellants' damages in the causes instituted against the ship according to the course and practice of courts of admiralty and to dismiss the cross libel, the libellants to recover costs in this court and in the court below.

Endorsements: 3036. Opinion of the Court by Morris, D. J. Received and filed Jun. 4, 1924. Saunders Lewis, Jr., Clerk.

IN THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT, OCTOBER TERM, 1923

No. 3036 (List No. 50)

CITRO CHEMICAL CO., Appellant,

vs.

SS. "WILLDOMINO," etc., Appellee

Appeal from the District Court of the United States for the District of New Jersey

This cause came on to be heard on the transcript of record from the District Court of the United States for the District of New Jersey and was argued by counsel.

On consideration whereof, it is now here ordered, adjudged, and decreed by this Court that the decree of the said District Court in this cause be, and the same is hereby reversed, with costs, and the cause remanded to the said District Court with directions to assess the libellant's damages against the ship according to the prevailing practice in Courts of Admiralty.

Philadelphia, June 4, 1924.

Victor B. Woolley, Circuit Judge.

Endorsements: 3036. Order reversing decree, etc. Received & filed Jun. 4, 1924. Saunders Lewis, Jr., Clerk.

IN THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT, OCTOBER TERM, 1923

No. 3037 (List No. 51)

CHARLES PFIZER & CO., Appellant,

vs.

Steamship "WILLDOMINO," Appellee

Appeal from the District Court of the United States for the District of New Jersey

This cause came on to be heard on the transcript of record from the District Court of the United States for the District of New Jersey and was argued by counsel.

On consideration whereof, it is now here ordered, adjudged, and decreed by this Court that the decree of the said District Court in this cause be, and the same is hereby reversed, with costs, and the

cause remanded to the said District Court with directions to assess the libellant's damages against the ship according to the prevailing practice in Courts of Admiralty.

Philadelphia, June 4, 1924.

Victor B. Woolley, Circuit Judge.

Endorsements: 3037. Order reversing decree, etc. Received & filed Jun. 4, 1924. Saunders Lewis, Jr., Clerk.

In the United States Circuit Court of Appeals for the Third Circuit, October Term, 1923

No. 3038 (List No. 52)

Charles Pfizer & Company, Appellant,

vs.

Convoy Steamship Co., Owner, etc., Appellee

Appeal from the District Court of the United States for the District of New Jersey

This cause came on to be heard on the transcript of record from the District Court of the United States for the District of New Jersey and was argued by counsel.

On consideration whereof, it is now here ordered, adjudged, and decreed by this Court that the decree of the said District Court in this cause be, and the same is hereby reversed, with costs, with directions to the said District Court to dismiss the cross-libel.

Philadelphia, June 4, 1924.

Victor B. Woolley, Circuit Judge.

Endorsements: 3038. Order reversing decree, etc. Received & filed Jun. 4, 1924. Saunders Lewis, Jr., Clerk.

IN THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT

No. 50, October Term, 1923

CITRO CHEMICAL COMPANY OF AMERICA, Appellant,

v.

Steamship "WILLDOMINO," HER ENGINES, BOILERS, ETC., Appellee

No. 51, October Term, 1923

CHARLES PFIZER & COMPANY, INC., Appellant

v.

Steamship "WILLDOMINO," HER ENGINES, BOILERS, ETC., Appellee

No. 52, October Term, 1923

CHARLES PFIZER & COMPANY, INC., Appellant

v.

CONVOY STEAMSHIP COMPANY, LTD., Owner of the Steamship "Willdomina," Her Engines, Boilers, etc., Appellee

PETITION FOR REHEARING

The petition of Convoy Steamship Company, Ltd., owner of the SS. "Willdomino" and appellee herein, respectfully suggests that the opinion and order of the Court herein is erroneous in the following respects and prays for a re-hearing of the causes:

I. LACK OF CAUSAL CONNECTION BETWEEN UNSEAWORTHINESS AND NEGLIGENT STRANDING

This Court expressly found that "the proximate cause of the stranding of the Willdomino, from which libellants' original loss resulted, was not unseaworthiness of the ship" (insufficient bunkers) (Opinion, p. 35). But the Court having found that the claimant had failed to exercise due diligence to make the vessel seaworthy in respect to the bunkers, although admittedly this had nothing to do with the stranding, held that the claimant was not entitled to exemption from the consequences of the negligent navigation under Section 3 of the Harter Act; and further held that this was so "wholly without regard to whether or not there was any causal connection between the lack of due diligence to make the ship seaworthy in all respects and the loss caused by the negligence in navigation or in the management of the vessel" (Opinion, p. 34).

It is respectfully submitted that the interpretation placed by the Court on Section 3 of the Harter Act finds no support in the authorities, and none in the following cases cited in the opinion:

International Navigation Company v. Farr & Bailey, 181 U. S. 218; The Southwark, 191 U. S. 1; and The Wilderoft, 201 U. S. 378.

In International Navigation Company v. Farr & Bailey, one of the ports was unsecurely fastened when the vessel sailed and water taken into the vessel through it damaged her cargo. It was held that the vessel was unseaworthy on account of the port being unsecurely fastened. The damage in that case was not caused by faulty navigation but was directly attributable to the unseaworthiness of the vessel. Had the vessel been seaworthy there *were* would have been no damage whatever.

In the case of The Southwark, the vessel, a refrigerator ship, was held unseaworthy in that the refrigerator plant was not at the time of sailing in a condition to function properly. The owners had failed to exercise due diligence to put the refrigerator plant in proper condition. The meat in the refrigerator spoiled as the direct result of the unseaworthiness. There was no evidence whatsoever of faulty navigation in the case.

In The Wilderoft, the damage was caused by the opening of a valve in a water pipe in the hold after the vessel had reached her port of destination. The Court held that she was seaworthy at the beginning of her voyage and that due diligence had been exercised to make her so. The cause of the damage was negligence in operation after the vessel reached the dock.

An examination of the facts in these cases will show that the Court in none of them was called upon to say that if the vessel were unseaworthy, or that due diligence had not been exercised to make her so, the owners would be liable for damages arising from faulty navigation without regard to whether or not there was any causal connection between the lack of due diligence to make the ship seaworthy in all respects and the loss caused by negligence in navigation or in the management of the vessel.

We have been unable after a thorough search of the books to find any case since the passage of the act except the cases, infra, in 282 Fed. 354 and 284 Fed. 439, in which a ship-owner has been held liable for an error in navigation or management simply because it has failed to exercise due diligence to make the vessel seaworthy in some respect which was not connected in causation with the loss. If a causal connection need not be shown it would follow that a vessel which sailed from port with only five lifeboats where six were required by law would be liable to the owners of the cargo on board his vessel for damage caused by its negligent stranding.

We submit that the clause "in all respects" used in Section 3 of the act means "in all respects" material to or connected in causation with the errors in navigation or management. As the Circuit Court of Appeals for the Sixth Circuit expressed it in the R. P. Fitzgerald, 212 Fed. 678, 686, the statute protects the carrier "if in spite of the negligence and notwithstanding the injury therefrom his vessel is seaworthy as against such acts or he has used reasonable diligence to make it so."

In The Turret Crown, 282 Fed. 354, 359 (S. D. N. Y., 1922),

Judge Ward found that the vessel was unseaworthy in respect to her steering gear at the time it sailed and that the owners had knowledge thereof.

In an opinion in which he dismissed a bill filed by the cargo-owners he said:

"But the question is whether this unseaworthiness, whose defects were fully developed before water got into the fuel tanks, contributed to the bottom damage which injured the cargo. Of course, after the fuel oil gave out, the steering gear, even if perfect, would have been of no possible consequence. The deck log continuously describes the behavior of the steamer in the sea down to the time when she turned back as 'rolling heavily.' Rolling does not imply the pitching, which causes bottom damage. Even if the vessel fell off so far as to be in the trough of the sea, there would be no pounding. It seems to me that the breaking down of the steering gear, instead of increasing, decreased the strain upon the vessel. (P. 359.)

* * * * * * *

If forcing the steamer into the sea, whether a head sea or a following sea, at a speed sufficient to give steerageway did contribute to the bottom damage, it was an error in navigation and management of the vessel, for which the claimant is excused by the Harter Act. (P. 360.)

The Circuit Court of Appeals reversed the decree, January 10, 1924 (297 Fed. 766; 1924 A. M. C. 253) because it found that the unseaworthy condition of the vessel at the time of the inception of the voyage had a causal connection with the damage to the double bottom tanks which caused the damage to the libellant's goods. We quote from the opinion as follows at page 773 of the "Federal Reporter" and 261 of the A. M. C.:

"We are satisfied that the defects in the steering gear added to the strains on the vessel as qualified experts declared. The proximate cause of the distress of the ship which ultimately required her to return to port was the defective condition of the steering gear. The failure of the steering gear and inability to control the vessel produced a wrenching and straining and pounding of the vessel which in turn resulted in damage to the tanks. It was an unseaworthy condition of the vessel. * * *"

And at page 774 of the "Federal Reporter" and 263 of the A. M. C.:

"The defects in the steering gear were fully developed before there was any trouble with the vessel's fuel tanks. The trouble with the fuel tanks arose some twenty-four hours after the steering gear had developed serious defects and prevented the vessel from being properly steered and required her to stop. * * *

"In the view we take of the evidence, the conclusion is irresistible that the damage to the double bottom tanks of the ship was due to

the added strains to which they were subjected by reason of the defective steering gear. In this view of the case, the appellee is liable."

It wil be observed therefore that the statement of the law as to causal connection as laid down by Judge Ward was not overruled by the Circuit Court of Appeals, but was in fact practically affirmed, inasmuch as the Circuit Court of Appeals found a causal connection between the unseaworthiness and the negligent navigation which the District Judge had been unable to find.

In The Turret Crown, 284 Fed. 439, 444 (C. C. A. 4th Cir.) the opinion of the Court stated that it had before it a copy of the opinion of Judge Ward in The Turret Crown, 282 Fed. 354 (S. D. N. Y.), in which, as the opinion states, Judge Ward had found that the owners were negligent in failing to correct a defective steering-gear but had found "the cause of the cargo damage was the water taken into the fuel tank through the bottom" and "that this was not caused by the unseaworthiness of the vessel." The opinion then proceeded to say:

"If we accept, as we are disposed to do, his finding of the facts in this regard, it would seem to follow, of course, that, there being no causal relation between the unseaworthiness and the damage, no advantage may properly be taken of the former."

These are the only cases that we have found directly in point.

Theer are several analogous cases arising under the act for the limitation of ship-owners' liability, U. S. Comp. Stat. 8021, Rev. Stat. 4283, which limits the liability of a ship-owner for loss to the amount of his interest in the vessel and the freight then pending if the loss is incurred "without the privity or knowledge of such owner or owners." Prior to this statute the owner was held to full liability in all events.

In The City of Para, 44 Fed. 689, 691 S. D. N. Y., (1891), the vessel was stranded, due to negligent navigation. The owners asked for limitation of liability and libellants objected on the ground that the vessel was unseaworthy because of the condition of her shaft at the time of sailing and because the western route on which she was stranded was adopted at the instance of the owners. The court allowed a limitation, stating:

"It does not appear, however, that the owners were in any way privy to the faults that brought about the stranding. Neither the condition of the shaft, nor the adoption of the western route, was its proximate or efficient cause."

In The Thessaloniki, 267 Fed. 67 C. C. A., 2nd Circ.), the Court allowed a limitation of liability, saying:

"The only charges of unseaworthiness in the pleadings and in the proofs are connected with the boilers, engines and sounding pipes. We may assume them all to be established, and the only result would be delay in the prosecution of the voyage."

In Re Rapid Transit Ferry Co., 124 Fed. 786 (S. D. N. Y., 1903), the Court allowed a limitation of liability in a collision case where the owners were in privity with the pilot and

"knowingly permitted the pilot, in a negligent manner, to start the boat from the ferry bridge while he was standing on the stern of the boat behind a shed which cut off his view of vessels rounding the battery from the westward, and at a time when it was known the 'Mauch Chunk' was due to arrive at her slip and was probably approaching it."

The Court said (p. 795):

"This question would be an important one, if it did not appear that the negligent act, which the company was alleged to be in privity with, was not a cause of the collision. The starting of the boat by the pilot from the rear pilot house was undoubtedly negligent, and it is not clear that such negligence was not participated in by the company whose responsible agents on shore were, or should have been cognizant of the method of proceeding which was usually employed —The Republic, 61 Fed. 109 (9 C. C. A. 386)—but the negligent act which precipitated the collision was not the starting of the boat, but her continuance, with an accelerated speed, out beyond the confines of her slip. * * *

"The negligence which brought about the 'Northfield's' share in the disaster was the negligence of those navigating the boat when she was entirely beyond the control of the petitioner's agents on shore."

We submit, therefore, that both upon necessary principle and upon the sole authorities found in the books (and it is an eminent authority) causal connection must be shown.

II. Negligent Stranding Clause Contained in the Bill of Lading

This Court has stated that the claimant "can here derive no relief from the stipulation in the bill of lading" which reads:

"The ship and carrier shall not be liable for loss or damage occasioned by the perils of the seas or other waters * * * collision, stranding or other accidents of navigation of whatsoever kind, even when occasioned by the negligence, default or error in judgment of the pilot, master, mariners or other servants of the shipowner."

on the ground that in so far as such clause is "in conflict with the third section of the Harter Act it is obviously null and void, and in so far as it is co-extensive with or narrower than the Harter Act it is useless as the third section of the Harter Act is self-executing" (Opinion, p. 35). It seems to us, with all respect, that the Court has overlooked the fact that the above stipulation is not in conflict with Section 3 of the Harter Act, but is broader than that

section. Section 3 of the Harter Act does not prohibit contracts between the shipper and the carrier limiting the carrier's liability. Such prohibitions only appear in Sections 1 and 2 of the act. These sections do not prohibit the inclusion of such a clause as the one quoted; their failure to do so inferentially admits the right of the parties to so contract.

It is submitted that three classes of exemptions are contemplated by the Harter Act: First, the prohibited exemptions covered by Sections 1 and 2 regarding liability for loss due to negligent "loading, stowage, custody, care or proper delivery" of the merchandise or for failure to exercise due diligence to make the vessel seaworthy, concerning which the parties may not contract to limit the carrier's common-law liability; second, the self-executing exemptions covered by Section 3, providing that without contractual provisions the carrier shall not be held liable for error in navigation or management where it has used due diligence to make the vessel seaworthy; third, the residual exemption clauses, which are not specifically prohibited, concerning which the parties are left free to contract between themselves as to the carrier's liability.

Prior to the Harter Act it was against the public policy of the United States to allow a carrier to insert a clause in the bill of lading such as the one herein discussed (The Montana, 129 U. S. 397, 464), but Congress changed the public policy in this regard by the adoption of the Harter Act (The Jason, 225 U. S., 32), and left the parties free to contract for the limitation of the carrier's liability for negligent stranding.

III. Deviation

The Court has found as a fact that the ship went to Sydney for coal for bunkers for a subsequent voyage and that this constituted a deviation and displaced the bill of lading.

We submit that this finding is contrary to the uncontradicted evidence in the case.

It was not contended at the trial below that the "Willdomino" went to Sydney for bunkers for a subsequent voyage. The point was not mentioned by libellants' proctor in his statement of alleged faults presented to the trial Judge at the close of the libellants' case-in-chief. This statement does not appear in the printed record, but it is set forth in the opinion of the trial Judge (Record, p. 1367).

This contention was not mentioned in the oral argument at the end of the trial below.

At the close of the oral argument the libellants' counsel handed to the trial Judge a statement containing "27 points of negligence," but none of these points mentioned bunkers for a subsequent voyage. These 27 points do not appear in the testimony in the printed record. They are set forth in the opinion of the trial Judge (Record, p. 1369).

In fact, the question was suggested for the first time in the petition of appeal (par. 20, Record, p. 1395).

The question was raised in the fifteenth and sixteenth assignments of error. These assignments were not included in the printed record,

but were printed as an insert to libellants' brief and were not in fact handed to appellee's counsel until a few days before the argument in this court, and after the appellee's brief had ben printed. The assignments are to be found as an insert in appellants' brief at pages 13a to 13f.

The subject was dismissed in appellee's "Memorandum" or brief at page 82 (printed before the receipt of appellants' brief) with the mere statement that there was no basis in the testimony for this contention.

At pages 61-67 of appellants' brief there is a lengthy mathematical computation which it was contended showed that there would be no saving for an owner to go to Sydney for bunkers for the voyage to New York, but it would be a saving if we went there to take bunkers for a subsequent voyage and from this it was argued that the vessel must have gone to Sydney for bunkers for a subsequent voyage. Appellee's supplemental brief, January 5, 1924, met appellants' contention with the statement that there was "not a shred of evidence to the effect that the vessel was proceeding to Sydney for bunkers for a subsequent voyage" (p. 17). Appellants' reply brief dated January 7, 1924 (the day of the argument in this court and first handed to appellee's counsel during the argument) urged that Williams, claimant's president, never denied that their ship would have taken bunkers for her subsequent voyage at Sydney (p. 14). But this statement is directly contrary to his evidence.

This point of bunkers for a subsequent voyage was not touched upon in the oral argument before this Court, according to the recollection of appellee's proctors, or, at most, but a slight allusion was made to it.

We submit that, in these circumstances, the authorities are full to the point that this contention that the ship went to Sydney for bunkers for a subsequent voyage should not have been considered in this court.

We need only refer to the authorities cited by this court in its opinion (printed copy, p. 47) in refusing upon this same ground to consider the question whether the fact that the vessel took cargo at Lisbon was a deviation. These authorities are:

Badger v. Ranlett, 106 U. S. 255, 259;

H. W. Paine v. Manistee Tanning Co., 279 Fed. 340; 2 R. C. L. 69.

We may add a later case in the C. C. A., 2d Cir., The Lydia, 1924 A. M. 1001, 1010. There it was held as follows:

"In short the matter is within the familiar principle that a point not raised below nor presented by the pleadings cannot be raised for the first time in this appellate court. The Minnie, 225 Fed. 36; Jova etc. Works, v. New York, 277 Fed. 180."

We may add that the fact that proctor for the libellant did not raise this question below may detract somewhat from the rather trenchant argument in appellants' brief, when, rather late, he comes to urge this point.

The record shows that the "Willdomino" arrived in Sydney with 61 tons of bunkers unconsumed (Record, p. 1251) and there took on 62½ tons (Record, p. 1253) which was secured by the efforts of her Halifax agent (Record, p. 547), Mr. Hensley, of Pickford, Black & Company, Ltd. This he did at the claimant's request (Record, p. 1343) in order to bring the vessel to Halifax where bunkers for New York had been arranged. At Halifax she obtained 424 tons of coal (Record, p. 1269) and arrived at New York with 250 tons unconsumed. This could not by any stretch of the imagination be held to be bunkers for a subsequent voyage which must necessarily be to a foreign port inasmuch as the vessel was under the British flag and excluded from coastwise traffic.

This Court holds that the fact that the vessel did not actually obtain bunkers at Sydney for a subsequent voyage is immaterial "for it is the purpose of the deviation and not the consummation of that purpose that is the test in the matter of deviation" (Opinion, p. 49). This we submit is contrary to the well-established rule laid down by the Supreme Court in Marine Insurance Company v. Tucker, 3 Cranch, 357, 393 (1806), that an intention to deviate is not a deviation unless the intention be carried into execution. See also North British and Mercantile Insurance Co. v. H. Baars & Co., 255 Fed. 625, 626 (C. C. A., 5th Cir.).

As to the evidence on this subject:

The only evidence in the record on the question of the intention with which the vessel went to Sydney is that of Mr. Williams, the claimant's president, who was examined at length before the trial Judge and whose testimony is directly contrary to the finding of this Court.

We quote from his testimony as follows:

Cross-examination (Record, p. 71, fols. 213-215):

"Q. But did you give your master standing orders to coal at Sydney?

A. I don't know as he had standing orders. We have made it a sort of practice to coal at North Sydney; as I recall it, along about that period we were having great difficulty in getting ship's bunkers on the Atlantic Coast of the United States, as you know in those days there were many embargoes on coal, and so on.

Q. Well, did the master of the 'Willdomino' have orders to coal this vessel at Sydney?

A. You mean on this particular voyage?

Q. Yes.

A. I don't know; he might have had; you mean at the time of leaving Lisbon?

The Court: If you don't know, why, just say so.

Q. Why were you hesitating about that answer?

A. Well, I am hesitating as to whether it was when he was at Lisbon or at Ponta Delgada.

Q. When he was at Ponta Delgada, did he have orders to coal at Sydney?

A. I think he naturally would have had orders to coal at the nearest coaling port, which would have been North Sydney."

Recalled.

Cross-examination (Record, p. 234, fols. 702-704):

"Q. How big were the bunkers of the 'Willdomino,' and how much coal would she take?

A. Permanent bunkers about 650 tons and reserve bunkers in her bridge deck about 802 tons.

Q. So she could carry about 1,400 tons of coal?

A. Fourteen hundred fifty.

Q. Did you anticipate that when the vessel sailed from Ponta Delgada that she would go to Sydney and there take on approximately 1,400 tons of coal?

A. No. We may have given him orders to proceed to the nearest coal port, which would have been North Sydney from Ponta Delgada.

Q. If he could have gotten it there, was it the duty of the master when he got to Sydney to fill up his bunkers with coal there?

Mr. Sprague: I object to that question as to what the duty of the master was.

The Court: I will permit it.

A. It might be considered his duty, but since we were able to get in touch with North Sydney we would have given the instructions."

Recalled.

Cross-examination (Record, p. 862, fols. 2584-2588):

"Q. When you sent this cable to your master directing him to go to Sydney, didn't you intend that he should at North Sydney take on bunkers for the return trip to Europe?

A. No, sir. We hadn't any voyage fixed.

Q. Well, for the next trip that this vessel should make to sea?

A. No, sir.

Q. You didn't intend that he should take on enough coal to go to sea again?

A. No, sir, hadn't any next voyage in mind.

Q. Did you intend that he should take on enough coal at North Sydney to coal some other ship of yours from an Atlantic port to sail?

A. No, sir.

Q. Now, that is exactly what the 'Willdomino' had done on the preceding trip, wasn't it?

A. After we arrived at North Sydney, we did that, yes.

Q. On the preceding trip of the 'Willdomino' you had her coal in North Sydney?

A. Yes, sir.

Q. For her requirements to get to New York and then sail again?

A. No, to transfer coal to some other British steamers.
Q. That you owned?
A. That we owned.
Q. Now, then, on that other trip that the 'Willdomino' stopped at North Sydney, she was coming from the Baltic Sea, wasn't she?
A. No, sir.
Q. Where was she coming from?
A. St. Nazaire, France.
Q. That is considerably further north than Lisbon, isn't it, that port?
A. Yes.
Q. St. Nazaire was the last place that this vessel stopped in Europe on the preceding trip?
A. It is where she discharged her cargo and sailed for North Sydney under ballast.
Q. Then she wasn't in danger to any other cargo on that preceding trip when she stopped at Sydney for coal, was she?
A. No, sir.
Q. No other cargo to be injured?
A. No cargo aboard of her.
Q. Is that the only other time the 'Willdomino' stopped at North Sydney while under your management and before this accident?
A. I think so."

It is submitted that the above testimony is clear and unequivocal to the effect that the vessel did not go to Sydney for bunkers for a subsequent voyage.

It is difficult to believe that the owners meant or expected to get coal at Sydney for a subsequent voyage or believed that they could do so, when it appears that coal was at that time extremely hard to get at Sydney by reason of a strike and that this ship had to procure the interposition of a firm in Halifax in order to get even 60 tons there. It should be remembered that this is a British ship and that her home port and her place of registry was Halifax. Surely the stringent coal conditions at Sydney, a nearby port, must have been well known to her owners.

It is equally difficult to believe that experienced shipping men would have risked an unjustifiable deviation and the displacement thereby of the bill of lading by sending the ship to Sydney for that purpose.

For both of these reasons, we think that the learned Court has attributed to the owners a quite impossible or certainly a most improbable course of conduct, and drawn an incorrect inference from what it designates as "circumstantial evidence." We think that the improbability, in the circumstances, that the owners of this ship sent her to Sydney for coal for bunkers for a subsequent voyage strongly corroborates the direct and positive and firm testimony of the owner that she was not sent to Sydney for that purpose. Indeed we respectfully urge that the "circumstantial evidence" all tends to support the direct evidence of the owner and not the inference drawn by the Court.

Had this point been raised at the trial, evidence could have been obtained by appellee from Mr. Hensley, the Halifax agent of the vessel, to prove that he was directed by the owner in advance of the arrival of the ship at Sydney to order only bunkers for the voyage to New York and that these orders remained unchanged. Further, that while he made every effort to procure at Sydney enough bunkers for New York, he was able (by reason of a coal strike at Sydney) to procure only enough coal (62½ tons) for Halifax.

An affidavit by Mr. Hensley to this effect is now being prepared. Leave is here asked to file his affidavit in support of this motion. Also, to take his testimony in support of this motion for a rehearing.

This agent, Mr. Hensley, was examined on deposition on December 1, 1921 (Record pp. 543-564), and the fact that he was not questioned on this point by counsel for either side at that time was because this point had never been raised.

This Court admits "that there is no direct evidence that it was the purpose to obtain at Sydney coal for a subsequent voyage" (Opinion, p. 51). We submit that the situation is more accurately expressed by saying that the direct evidence is that the vessel went to Sydney for bunkers for the voyage to New York and not for a subsequent voyage. The argument of counsel for appellants in his brief to the effect that the testimony of Mr. Williams is unbelievable because the sending of the ship to Sydney for coal for the voyage to New York would not have resulted in an economy, cannot take the place of evidence. The testimony of the president of the company is not impeached and, standing uncontradicted as it does, there is no valid reason why it should not be taken as a verity.

The additional evidence to be furnished by Mr. Hensley's affidavit that it was he who procured the 62 tons at Sydney and that, in doing so, he was obeying the direct order of the owner to procure at Sydney only bunkers for New York, corroborates the testimony of the president.

While we cannot argue that, in this case where not all the witnesses were examined before the Court below, this Court will not feel itself constrained to accept the findings below in their entirety, yet we argue with confidence that inasmuch as the testimony of the president of the company on this important question now being discussed was taken orally before the trial Judge, this Court should follow his findings of fact so far as the testimony of the president is concerned, and such findings should not be disturbed unless there is most cogent evidence of mistake and miscarriage of justice.

This appears to be the rule deducible from Ohio Valley Bank Co. v. Mack, 163 Fed. 155, 158; In re Charles R. Partridge Lumber Co., 215 Fed. 973; Walter et al. v. Atha, 262 Fed. 75.

There is no such evidence of mistake or miscarriage of justice here.

This Court has not held that if the vessel went to Sydney for bunkers for New York it was an unjustifiable deviation. The trial Court found the voyage to Sydney justifiable.

The liberties given to the vessel in the bill of lading were extremely broad. They allowed the vessel "to call at intermediate

ports or any port or ports in or out of the customary route in any order to receive and discharge coal" and gave her the liberty of "bunkering at any port or ports in or out of the way." The increased distance from Lisbon to New York via Sydney was only about 300 miles (Opinion, p. 49). This was a reasonable deviation from the direct course from Lisbon to New York and allowable under the rule of The Blandon, 287 Fed. 722, and The Emelia S. de Perez, 287 Fed. 361 (affirmed 288 Fed. 1019), both cited in the opinion of the Court.

In the "Blandon" case the clause "with the liberty to call at any port or ports in or out of the customary route in any order" was held to justify the vessel in stopping at Philadelphia for cargo, 30 hours sailing distance from New York and all of 300 miles in and out, on a voyage from New York to Valencia. In Emelia S. de Perez a transshipment clause with an authorization "to deviate, to proceed to the port stated in this bill of lading via any port or place en route or beyond, in any order, whether in or out of the customary or advertised route for any purposes whatever" was held to justify the carrier in not stopping at Valencia, the destination named in the bill of lading and in carrying the goods forward to Barcelona, 125 miles further, and shipping them back by another steamer.

We submit therefore that the right of the vessel to proceed to Sydney for bunkers for New York can hardly be disputed.

But even if that liberty were not given under the bill of lading there is another settled rule of law which justified her in going there in an emergency due to the failure of coal even though her predicament was brought about by her leaving Lisbon without sufficient coal for New York. Thus, the Circuit Court of Appeals for the Fourth Circuit in The Turret Crown, 284 Fed. 439, and the Circuit Court of Appeals of the Second Circuit in a case of the same name, The Turret Crown, 297 Fed. 766, 1924 A. M. C. 253, 266, both held that the act of the master in putting into a port of refuge to save the ship, cargo and crew was a justifiable deviation although the predicament in which he found himself was caused by the owner sending the vessel to sea in an unseaworthy condition.

Both of these cases follow Kish v. Taylor, (1912) A. C. 604, in the House of Lords, which reversed the judgment in that case reported in (1911) 1 K. B. 625, and upheld the decision of Walton, J., in (1910) 2 K. B. 309.

The following is the language of Kish v. Taylor as quoted in The Turret Crown, 284 Fed. 439, 446:

"* * * It is prima facie not only the right but the duty of the master of a ship to deviate from the course of his voyage and seek a harbor or place of safety, if that be reasonably necessary in order to save his ship and the lives of his crew from the perils which beset them. * * *

* * * * * * *

"So that the question for decision, resolves itself into this: Is it the presence of the peril and not its cause which determines the char-

acter of the deviation, or must the master of every ship be left in this dilemma, that whenever, by his own culpable act, or a breach of contract by his owner, he finds his ship in a perilous position, he must continue on his voyage at all hazards, or only seek safety under the penalty of forfeiting the contract of affreightment? Nothing could, it would appear to me, tend more to increase the dangers to which life and property are exposed at sea than to hold that the law of England obliged the master of a merchant ship to choose between such alternatives."

Kish v. Taylor is cited in 24 R. C. L. 1341, with approval, a fact which would seem to weaken the value of the citation by this Court in this connection of 24 R. C. L. 1336, to the contrary.

IV. Unseaworthiness

The opinion, after stating that the coal supply on sailing from Lisbon was not sufficient for the voyage to New York, proceeds to consider the effect of the provision in the bill of lading which gave the vessel the liberty "to call at intermediate ports or any port or ports in or out of the customary route in any order to receive and discharge coal."

Also to conisder another provision.

"Eighth. The ship has liberty of filling up and/or bunkering at any port or ports in or out of the way."

(An amendment in writing is considered in the opinion as not affecting the two preceding provisions.)

The opinion then proceeds to say that Lisbon was the terminus a quo of this voyage and New York the terminus ad quem and that "there is no evidence that there is a port at which it is customary and usual for vessels on a voyage from Lisbon to New York to call for coal."

Perhaps there is not; but this ship had an unquestionable right to go to Sydney for coal. The language of the bill of lading quoted above cannot be otherwise construed. It does not contain merely the words "any port or ports" which were held by Lord Esher in Leduc v. Ward, 20 Q. B. D. 475, 6 Asp. Mar. Cases 291, to mean only ports "substantially on the line of that voyage" and not to include, in a voyage from Fiume to Dunkirk, a stop at Glasgow.

The case at bar rather falls under Benjamin Smith & Co. v. Regem, 34 T. L. R. 566 (1918), in the House of Lords, where the bill of lading (substantially as in the case at bar) provided for stopping at ports and places, "notwithstanding that such ports and places are out or away from the customary or geographical route."

It was there held:

"It was hardly argued that the mere sending of the vessel to Murdos and Imbros was a deviation not authorized by the bill of lading,

and no such contention would have succeeded. This no doubt involved a detour far out of the ordinary course of a voyage between Melbourne and London, but in his opinion it was authorized by the bill of lading and particularly by the marginal clause."

The case of Hurlburt v. Turnure, 81 Fed. 208, cited in the opinion of this Court, differs on its facts. That was a short voyage from Cuba to New York. The coal on leaving Cuba was five tons short of a reasonable supply. It was held that the ship could not "sail voluntarily from the port of departure with a short supply of coal, and thus created deliberately a necessity to call at intermediate ports not mentioned in the bill of lading and contrary to the customary course of the voyage."

But in the case at bar it was a long voyage, and Sydney was by the stipulation of the bill of lading brought into the line of the route as a coaling port. A ship from China to Liverpool is not required to leave China with coal for the entire voyage. She may coal at ports along the route. She really sails by stages. Starting on each stage, she is required only to have coal enough for that stage. By the above-quoted language of the bill of lading, Sydney was made a lawful coaling place for this vessel.

If, sailing from Lisbon, this vessel had a right to go to Sydney for coal, nothing else makes any difference. It cannot affect or limit that right that in clearing from Lisbon, she cleared for New York. That merely indicates New York as her final port of destination.

Why should she not in leaving Messina "clear" for New York, which was her final destination?

Can it be doubted that a ship sailing from the Philippines to Philadelphia clears for Philadelphia? This fixes her status—her voyage. Where she coals on the way is fixed by custom, perhaps by need and certainly, as here, can be fixed by the broad language of the bill of lading. The bill of lading here is broad and permits coaling at Sydney whether it be "in or out of the customary route."

Nor, it is submitted, does it matter that in sailing from Ponta Delgada the course was first laid to New York or not.

The evidence shows that in leaving Ponta Delgada the ship took the Great Circle Course and after five days steered for Sydney. In the court below it was stated that when the ship steered to Sydney "they were then on the Great Circle Course and the pulling into Sydney meant very little change from the course they were then on" (Record, p. 1367).

If the Court, in considering this motion for a rehearing, will look at the map of the North Atlantic in evidence they will observe how slight is the difference between a course to Sydney and one to New York when sailing on the Great Circle Course.

As a matter of fact, the appellants throughout the trial contended that the vessel sailed directly from Ponta Delgada to Sydney and not to New York. The faults specified by the appellants' proctor at the beginning of the trial below included the following:

"That the vessel when she sailed from Ponta Delgada took a course direct for Sydney. In other words she did not attempt to make her destination but took a long leg to Sydney for the purpose of making a stop there to obtain coal." (Record, p. 1367.)

At the oral argument at the close of the case, in listing the different respects in which he said the vessel was negligent, appellants' counsel contended:

"7. That she did not sail for her destination (New York) but sailed for Sydney." (Record, p. 1370.)

The fourteenth clause of the petition of appeal likewise is based upon the contention "that the vessel sailed from Ponta Delgada direct to Sydney" (Record, p. 1394).

The tenth assignment of error (appellants' brief, p. 13b) is to the same effect.

That the ship had orders to go to Sydney cannot be questioned. Such was the effect of the cablegram to the master at Gibraltar (Record, p. 1090). Mr. Williams testified as follows (Record, p. 866):

"Q. What was the purpose of this telegram; what did you mean by it?

A. Take enough bunkers to make North Sydney. * * *

Q. When you sent this cable to your master, did you mean that he should folow the directions contained in it or not?

A. Generally speaking, yes."

The fact that the vessel cleared at Lisbon for New York and that the heading at the top of the deck log book reads "from Lisbon to New York" (Record, p. 1010) and the heading in the engineer's log book reads "from Lisbon towards New York" (Record, p. 1203) must not receive serious consideration nor be allowed to overrule the instructions of the owners to proceed to North Sydney as contained in the cablegram to the master at Gibraltar. It is to be noted also that upon leaving Ponta Delgada the entry in the deck log reads (the captain's log) "from Ponta Delgada to Sydney, C. B." (Record, p. 1034), although the engine room log entry remained "from Ponta Delgada towards New York" (Record, p. 1229).

The learned opinion recognizes the fact that long voyages may be made in stages, in which case the requirement of coal supply need be only enough for each stage. The good ship "Texas Maru" from Java to Baltimore with sugar coals at Colomba, Port Said and Gibraltar. These are the stages. At Java she must have coal enough for Colomba and so on to the end of the voyage.

The "Willdomino" had orders to go to Sydney for coal—on her way to New York. Lisbon to Sydney was a stage. She had sufficient coal for that stage and arrived safely at Sydney with coal to spare. Admittedly, on leaving Sydney she had coal enough for Halifax. How, we ask, can she be held to have been unseaworthy for lack of coal when she left Lisbon.

A vessel sailing from Lisbon and having orders for Sydney to take coal (as authorized by her bill of lading) clears at Lisbon for New York (her ultimate port) with sufficient coal for Sydney (but scarcely enough for New York) and proceeds to Sydney and arrives there safely, can hardly be held unseaworthy because she left Lisbon without sufficient coal for New York.

Wherefore, your petitioner prays that this Court allow a re-hearing of the above causes on the points aforesaid.

Dated, July 3, 1924.

Convoy Steamship Company, Ltd., by Joseph W. Henderson, One of Its Proctors. Francis Rawle, George W. Betts, Jr., George C. Sprague, Thomas F. Mount, Of Counsel.

I hereby certify that I have examined the foregoing petition; that in my opinion it is well founded and entitled to the favorable consideration of the Court, and that it is not filed for the purpose of delay.

Francis Rawle, Counsel

IN THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT

No. 3036, March Term, 1924

CITRO CHEMICAL COMPANY OF AMERICA, Appellant,

v.

Steamship "WILLDOMINO," HER ENGINES, BOILERS, etc., Appellee

No. 3037, March Term, 1924

CHARLES PFIZER & COMPANY, INC., Appellant,

v.

Steamship "WILLDOMINO," HER ENGINES, BOILERS, etc., Appellee

No. 3038, March Term, 1924

CHARLES PFIZER & COMPANY, INC., Appellant,

v.

CONVOY STEAMSHIP COMPANY, LTD., Owner of the Steamship "WILLDOMINO," Her Engines, Boilers, etc., Appellee

Appeal from the District Court of the United States for the District of New Jersey

Before Woolley and Davis, Circuit Judges, and Morris, District Judge

Per CURIAM: We have considered the petition for a rehearing in the above-entitled causes and also the incidental application for leave

to file an affidavit of Mr. Hensley, the Halifax agent of the vessel, "to prove that he was directed by the owner in advance of the arrival of the ship at Sydney to order only bunkers for the voyage to New York and that these orders remained unchanged. Further, that while he made every effort to procure at Sydney enough bunkers for New York, he was able (by reason of a coal strike at Sydney) to procure only enough coal (62½ tons) for Halifax." Should such testimony be received and given its greatest effect it would fail to negative that it was the purpose of the owner, or the master in obedience to the cablegram received by him at Gibraltar, to order additional bunkers after the vessel arrived at Sydney. It would not, in our opinion, be adequate to overcome the evidence in the cause that such was the primary purpose for which the vessel put in at Sydney. Consequently, we think that neither affidavit nor testimony of Mr. Hensley, if taken, would serve any useful purpose.

Each of the grounds, whether of law or fact, urged in support of the petition for rehearing were weighed fully by us during the consideration of the cause. We find nothing in the petition for rehearing which presents those grounds in a new light or leads us to doubt the soundness of the views with respect thereto as expressed in the opinion filed.

The motion for a rehearing is denied.

Endorsements: 3036. Per Curiam order denying petition for rehearing. Received & filed Jul. 26, 1924. Saunders Lewis, Jr., Clerk.

UNITED STATES OF AMERICA,
Eastern District of Pennsylvania,
Third Judicial Circuit, set:

I, Saunders Lewis, Jr., Clerk of the United States Circuit Court of Appeals, for the Third Circuit, do hereby Certify the foregoing to be a true and faithful copy of the original record (Volume 2) and proceedings in this Court in the cases of: Citro Chemical Co. v. S. S. "Willdomino," etc., No. 3036; Chas. Pfizer & Co. v. S. S. "Willdomino," etc., No. 3037; Chas. Pfizer & Co. v. Convoy Steamship Co., Ltd., etc., No. 3038, on file, and now remaining among the records of the said Court, in my office.

In testimony whereof, I have hereunto subscribed my name and affixed the seal of the said Court, at Philadelphia, this fourth day of August in the year of our Lord one thousand nine hundred and twenty-four and of the Independence of the United States the one hundred and forty-ninth.

Saunders Lewis, Jr., Clerk of the U. S. Circuit Court of Appeals, Third Circuit. (Seal of United States Circuit Court of Appeals, Third Circuit.)

SUPREME COURT OF THE UNITED STATES, OCTOBER TERM, 1924

No. 631

STEAMSHIP "WILLDOMINO," HER ENGINES, etc., Petitioner,

vs.

CITRO CHEMICAL COMPANY OF AMERICA

On Petition for Writ of Certiorari to the United States Circuit Court of Appeals for the Third Circuit

ORDER GRANTING PETITION FOR CERTIORARI—Filed October 27, 1924

On consideration of the petition for a writ of certiorari herein to the United States Circuit Court of Appeals for the Third Circuit, and of the argument of counsel thereupon had, it is now here ordered by this Court that the said petition be, and the same is hereby, granted, the record already on file as an exhibit to the petition to stand as a return to the writ.

SUPREME COURT OF THE UNITED STATES, OCTOBER TERM, 1924

No. 632

STEAMSHIP "WILLDOMINO," HER ENGINES, etc., Petitioner,

vs.

CHARLES PFIZER & COMPANY, INC.

On Petition for Writ of Certiorari to the United States Circuit Court of Appeals for the Third Circuit

ORDER GRANTING PETITION FOR CERTIORARI—Filed October 27, 1924

On consideration of the petition for a writ of certiorari herein to the United States Circuit Court of Appeals for the Third Circuit, and of the argument of counsel thereupon had, it is now here ordered by this Court that the said petition be, and the same is hereby, granted, the record already on file as an exhibit to the petition to stand as a return to the writ.

SUPREME COURT OF THE UNITED STATES, OCTOBER TERM, 1924

No. 633

CONVOY STEAMSHIP COMPANY, LIMITED, Owner, etc., Petitioner,

vs.

CHARLES PFIZER & COMPANY, INC.

On Petition for Writ of Certiorari to the United States Circuit Court of Appeals for the Third Circuit

ORDER GRANTING PETITION FOR CERTIORARI—Filed October 27, 1924

On consideration of the petition for a writ of certiorari herein to the United States Circuit Court of Appeals for the Third Circuit, and of the argument of counsel thereupon had, it is now here ordered by this Court that the said petition be, and the same is hereby, granted, the record already on file as an exhibit to the petition to stand as a return to the writ.

Office Supreme Court, U. S.
FILED
SEP 3 1924
WM. R. STANSBURY
CLERK

No. 1
No. 2
No. 3

Supreme Court of the United States.

October Term, 1924.

Nos. 165 166 167

Steamship "WILLDOMINO", Her Engines, Boilers, Etc.,
Petitioner (Respondent Below),

against

CITRO CHEMICAL COMPANY OF AMERICA,
Respondent (Libelant Below).

Steamship "WILLDOMINO", Her Engines, Boilers, Etc.,
Petitioner (Respondent Below),

against

CHARLES PFIZER & COMPANY, Inc.,
Respondent (Libelant Below).

CONVOY STEAMSHIP COMPANY, Ltd., Owner of the Steamship "WILLDOMINO", Her Engines, Boilers, Etc.,
Petitioner (Libelant Below),

against

CHARLES PFIZER & COMPANY, Inc.,
Respondent (Respondent Below).

Petition for Writs of Certiorari and Brief.

FRANCIS RAWLE,
GEORGE W. BETTS, Jr.,
GEORGE C. SPRAGUE,
JOSEPH W. HENDERSON,
Counsel for Petitioners.

[illegible], 30 Church St., [illegible]

Supreme Court of the United States.

STEAMSHIP WILLDOMINO, HER ENGINES, BOILERS, ETC.,
Petitioner (Respondent Below),
against
CITRO CHEMICAL COMPANY OF AMERICA,
Respondent (Libelant Below).

October Term, 1924.
No.

STEAMSHIP WILLDOMINO, HER ENGINES, BOILERS, ETC.,
Petitioner (Respondent Below),
against
CHARLES PFIZER & COMPANY, INC.,
Respondent (Libelant Below).

October Term, 1924.
No.

CONVOY STEAMSHIP COMPANY, LTD., Owner of the Steamship Willdomino, Her Engines, Boilers, Etc.,
Petitioner (Libelant Below),
against
CHARLES PFIZER & COMPANY, INC.,
Respondent (Respondent Below).

October Term, 1924.
No.

NOTICE OF PETITION FOR WRITS OF CERTIORARI.

SIRS:

Please take notice that the annexed petition for writs of certiorari to the United States Circuit Court of Appeals for the Third Circuit will be submitted to the

Supreme Court of the United States on the opening of court on the sixth day of October, 1924, or so soon thereafter as counsel may be heard.

Dated, Philadelphia, September 3, 1924.

FRANCIS RAWLE,
GEORGE W. BETTS, JR.,
GEORGE C. SPRAGUE,
JOSEPH W. HENDERSON,
Counsel for Petitioners.

To

MESSRS. BIGHAM, ENGLAR & JONES,
and
MESSRS. MCDERMOTT, ENRIGHT & CARPENTER,
Proctors for Respondent.

IN THE SUPREME COURT OF THE UNITED STATES.

Steamship Willdomino, Her Engines, Boilers, Etc.,
Petitioner (Respondent Below),
against
Citro Chemical Company of America,
Respondent (Libelant Below).
October Term, 1924.
No.

Steamship Willdomino, Her Engines, Boilers, Etc.
Petitioner (Respondent Below),
against
Charles Pfizer & Company, Inc.,
Respondent (Libelant Below).
October Term, 1924.
No.

Convoy Steamship Company, Ltd., Owner of the Steamship Willdomino, Her Engines, Boilers, Etc.,
Petitioner (Libelant Below),
against
Charles Pfizer & Company, Inc.,
Respondent (Respondent Below).
October Term, 1924.
No.

PETITION FOR WRITS OF CERTIORARI TO REVIEW THE DECISIONS OF THE CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT.

To the Honorables the Chief Justice and the Associate Justices of the Supreme Court of the United States:

The petitions of Convoy Steamship Company, Ltd., and the SS. "Willdomino" respectfully show unto this Court as follows:

1. These are petitions for writs of certiorari to the United States Circuit Court of Appeals for the Third Circuit on the ground that the questions involved are of paramount importance to carriers of goods by water involving the construction of the Harter Act (27 Stat. 445) on a point which has never been raised before this Court, in the decision of which the said Circuit Court of Appeals for the Third Circuit has misconstrued said statute contrary to the regularly accepted canons of statutory construction and to the decisions of the Circuit Court of Appeals for other circuits.

2. The libels filed in these cases by the Citro Chemical Company of America and by Charles Pfizer & Company, Incorporated, are shippers' actions against the vessel for damages to cargo caused by the stranding of the SS. "Willdomino" on a submerged object off the coast of Nova Scotia about seven miles from Gannet Rock. The vessel was claimed by the Convoy Steamship Company, Limited, as owner. The action of the Convoy Steamship Company, Limited, is to recover freight money from Charles Pfizer & Company, Incorporated, for carriage of part of the cargo. The damages claimed by the Citro Chemical Company of America are $67,500 and Charles Pfizer & Company, Incorporated, $179,000. The freight money claimed by the Convoy Steamship Company, Limited, is $2514.08.

3. These three cases were ordered tried together by Judge Lynch in the United States District Court for the District of New Jersey in admiralty, and were printed in one record and argued together as one appeal and briefed as one appeal before the Third Circuit; and in order to save the time of your Honorable Court and for convenience will be argued together as

one petition for writs of certiorari and are briefed as one brief.

4. Judge Lynch decided the cases in favor of the petitioners by dismissing the libels in the cases brought by the Citro Chemical Company of America and Charles Pfizer & Company, Incorporated, against the SS. "Willdomino" and in favor of the petitioner, Convoy Steamship Company, Limited, against Charles Pfizer & Company, Incorporated, for freight money in the sum of $2965.01.

5. On appeal the decisions were reversed in an opinion by Judge Morris, District Judge for the District of Delaware, sitting specially in the Circuit Court of Appeals for the Third Circuit, with whom Woolley and Davis, Circuit Judges, concurred. A motion for rehearing was made and denied.

Statement of Facts.

6. The respondent, Citro Chemical Company of America, was the owner and consignee of one hundred and sixty-eight (168) casks of citrate of lime shipped on board the SS. "Willdomino" in June, 1920, at Messina, Italy, for New York; the respondent Charles Pfizer & Company, Incorporated, was the owner and consignee of three hundred and thirty-five (335) casks of citrate of lime likewise shipped. Bills of lading were issued by the ship's agent acknowledging receipt on board the vessel of the aforesaid merchandise in apparent good order and condition, to be carried to New York upon the following conditions, among others:

> "with liberty to call at *intermediate ports* * or any port or ports in or out of the customary route in any order to receive and discharge coal, cargo, passengers and for any other purposes . . .

*All italics are petitioners.

"*It is Mutually Agreed as Follows:* First: The Ship and Carrier shall not be liable for loss or damage occasioned by the perils of the sea or other waters . . . *or unseaworthiness of the ship even existing at time of shipment or sailing on the voyage, provided the owners have exercised due diligence to make the vessel seaworthy,* by collision, stranding or other accidents of navigation of whatsoever kind, even when occasioned by the negligence, default or error in judgment of the pilot, master, mariners or other servants of the ship-owner . . .; nor for any loss or damage occasioned by causes beyond his control . . .

"Third: The value of package receipted for as above does not exceed the sum of $100 unless otherwise stated herein, on which basis the rate of freight is adjusted.

"Eighth: *The ship has liberty of filling up and/or bunkering at any port or ports in or out of the way.*

"Ninth: Full freight is due on damaged goods and on goods diminished by leaking, but no freight is due on any increase in bulk or weight caused by the absorption of water during the voyage.

"Filling up only in ports on the way westward of (sic) New York." (This last clause is in handwriting; all clauses italicized above in heavy black type on the bill of lading.)

7. The two shipments in question constituted only a small part of the total cargo carried by the "Willdomino." After loading this merchandise and other cargo, the vessel sailed from Messina on June 11 and arrived at Gibraltar on June 16 and while at Gibraltar the master received from her owners the following cablegram:

"Your coal requirements excessive cost of bunkers Gibraltar very high make accurate measurement remaining bunkers if not enough to make North Sydney take only enough to reach there cut down consumption in every way if fuel runs short reaching coast cut out one boiler."

The SS. "Willdomino" received on board 400 tons of bunker coal at Gibraltar. This amount of coal added to what she had, made 756 tons of bunker coal on board when she sailed from Gibraltar on June 17. From Gibraltar the vessel proceeded to Lisbon, arriving at that port on June 18 and took on board additional cargo. She left Lisbon on June 24.

8. On June 29 a breakdown of the high-pressure turbine occurred, causing the loss of a large amount of lubricating oil and making it necessary for the vessel to proceed on her low-pressure turbine only, resulting in reduction of speed and increased coal consumption. This made additional coal and oil necessary and the vessel entered Ponta Delgada, Azores, therefor on July 3d. Both courts below held that this breakdown of machinery "was not attributable to any lack of care or diligence." After obtaining minor repairs and stores, including 250 tons of bunker coal, the vessel left Ponta Delgada on July 10 with 629 tons of coal in her bunkers.

9. While still a day out from North Sydney the vessel received a wireless from her owners to go to Halifax instead of North Sydney. At this time, however, the vessel did not have sufficient coal on board to reach Halifax, so she put in at North Sydney, where she arrived safely on July 21 with 62 tons of coal in her bunkers. She was able to procure at North Sydney only 62½ tons of coal, as there was a strike at that time, and she then was sent to Halifax, and while proceeding from North Sydney to Halifax about 6.30 A. M. on July 24 during a fog, she struck a reef or submerged object and tore a large hole in her bow. Water entered and almost completely filled lower No. 1 hold in which the citrate of lime was stored. The master was an experienced navigator who had twenty-

three years' experience and held a master's certificate for twelve years. He had never been over the course from Sydney to Halifax though he had been from Lewisburg to Halifax and from St. Johns to Halifax. The currents along the coast off which his course lay are treacherous. The coast is very tortuous and rugged and is recognized as a dangerous one. The master obtained a bearing at 5.45 P. M. from Scutari Lighthouse. At 8 P. M. she ran into a thick fog which continued throughout the night until after the stranding. After entering the fog speed was reduced and the whistle blown. The master was proceeding by dead reckoning and believed that his vessel was on her course twenty miles off shore. At 4.30 A. M. on the morning of July 24 he took a sounding which sounding showed ninety-one fathoms and no more soundings were made. Two hours later the vessel stranded about seven miles off shore. (The District Court found that the stranding occurred without fault; the Circuit Court of Appeals held that the stranding was negligent because of the failure of the master to take additional soundings.) After much difficulty, due to the propellers being partly out of water owing to the sea water in No. 1 hold, and after some assistance by a Government tug, the vessel reached Halifax on July 28.

10. At Halifax the vessel was surveyed by the port warden and by representatives of Lloyds and the London Salvage Association, and under their joint recommendation 400 tons of sand ballast were placed on the after deck, certain cargo shifted aft to correct her trim and the bulkhead between the submerged hold (No. 1) and the adjoining hold (No. 2) were strengthened. No cargo was discharged at Halifax. No drydock could be obtained at Halifax.

11. The vessel thereupon proceeded to New York under her own power but in convoy of a tug. She arrived at New York on August 7th. The larger part of her cargo, consisting of lemons, was discharged at Jersey City between August 7 and 19, after which the vessel was moved to One Hundred and Thirty-fourth Street, North River, Manhattan, and her cork cargo discharged, part of which was above the submerged citrate of lime in lower No. 1 hold.

After discharging the cork, the vessel went into dry dock in Hoboken on August 25 for survey. The contract for repairs was executed the following day and the repair work proceeded expeditiously. On October 2 the repairs were completed and the damaged merchandise was then removed from the hold and tendered to the respondents who refused to accept the same and abandoned the merchandise to the vessel.

12. Neither the petitioners nor their officers knew, nor were they at any time informed by the respondents of the characteristics of citrate of lime and that said merchandise was of high value. The respondent Citro Chemical Company of America knew of the stranding before the vessel arrived at New York and the respondent Charles Pfizer & Company, Incorporated, learned of it shortly thereafter. Both respondents were familiar with the characteristics of citrate of lime and its value, made surveys of this merchandise, including chemical tests of samples taken at the time the vessel first went into dry dock and stated that this merchandise was a total loss.

Citrate of lime consists of chalk as a carrier for citric acid, the citric acid having high value and the chalk very little value. The immersion of citrate of lime in sea water causes no chemical change in the commodity but does result in a bacteriological growth which exists for a time and frees a small amount of the citric acid content. The residue remaining after

the bacteriological growth ceases is still citrate of lime but contains slightly less citric acid content than before immersion. The citric acid content of the merchandise in question when shipped was 64 per cent.; tests of respondent's chemist from samples of the wet citrate taken when the vessel was first in drydock showed a citric acid content of from 26 per cent. to 42 per cent., without taking into account the fact that there was a large percentage of water in the sample. Allowing for the water in the sample tested, respondent's chemist stated that the citric acid content in the damaged merchandise was substantially 60 per cent. This was a loss of about 7 per cent. in that portion of the commodity which was valuable.

Decisions Below.

Judge Lynch in the District Court found that (1) the vessel was seaworthy upon leaving Messina; (2) that she was justified in going into Sydney under the deviation clause contained in the bill of lading; (3) that the stranding occurred at a time when competent mariners were exercising due care and diligence, and that such stranding was the "proximate cause of the damage inflicted on the citrate of lime by sea water"; (4) that the petitioner exercised reasonable care of the damaged merchandise after the stranding; and as there was no negligence on the part of the steamship dismissed the libels for cargo damage and sustained the cross-libel for freight.

The Circuit Court of Appeals found that (1) the stranding was due to negligent navigation in that the master failed to take sufficient soundings, (2) the ship and carrier were not entitled to the protection of the bill of lading provisions exempting it and them from liability for negligent stranding, inasmuch as these provisions were ineffective so far as they went beyond Section 3 of the Harter Act, and immaterial so far as

they gave the same relief as Section 3 of said act, (3) the "Willdomino" was unseaworthy upon sailing from Lisbon and Ponta Delgada because it had insufficient coal to reach New York but that this unseaworthiness did not contribute to the cargo damage, said damage being due to negligent navigation and not to unseaworthiness, (4) the ship and carrier were not entitled to the protection of Section 3 of the Harter Act because the vessel was unseaworthy for lack of sufficient bunkers upon sailing from Lisbon and Ponta Delgada and petitioner did not use due dilgence to make her seaworthy in this respect, (5) the vessel went to Sydney, C. B., for bunkers for an ensuing voyage rather than for bunkers to complete her trip to New York and that this was a deviation depriving the vessel and the petitioner of the protection of the agreed valuation clause in the bill of lading, (6) petitioner failed to exercise the reasonable care of the damaged merchandise required of them under the circumstances in not having discharged the citrate of lime as soon as the vessel was first drydocked for survey, (7) the cargo was not in specie when tendered to respondent Charles Pfizer & Company, Incorporated, and said respondent was not liable for the freight due on said shipment.

The Questions Involved.

I. Must there not be causal connection between the lack of due diligence to make a vessel seaworthy in all respects (lack of bunkers), properly manned, equipped and supplied, and the cause of the damage (negligence in navigation) to deprive the vessel and her owners of the exemption from liability afforded in Section 3 of the Harter Act (27 Stat. 445)? The Circuit Court of Appeals in its opinion states: "It follows, we think, that if the carrier fails to meet that burden (*proof that he exercised due diligence to make the vessel seaworthy in all respects, properly manned, equip-*

ped and supplied),* he is liable for damage to the cargo resulting from negligence of the Master and crew in the navigation or management of the vessel and the carrier is so liable, wholly without regard to whether or not there was any causal connection between the lack of due diligence to make the ship seaworthy in all respects and the loss caused by the negligence in navigation or the management of the vessel."

It is respectfully submitted that the interpretation placed by the Court below on Section 3 of the Harter Act finds no support in the authorities, but on the contrary, we submit that the clause "in all respects" used in Section 3 of the act means in all respects material to, or connected in causation with the errors in navigation or management. In these cases the Circuit Court of Appeals found the vessel unseaworthy by having insufficient bunkers when she left Lisbon and Ponta Delgada. The Circuit Court of Appeals further found that the cause of the damage was stranding, which was brought about by negligence in navigation and that the unseaworthiness had nothing to do with the stranding.

II. Under the terms of the bills of lading reading:

> "with liberty to call at *intermediate ports* or any port or ports in or out of the customary route in any order to receive and discharge coal, cargo, passengers and for any other purposes . . .
>
> "Eighth: *The ship has liberty of filling up and/or bunkering at any port or ports in or out of the way.*"

was the act of the SS. "Willdomino" in going to Sydney a deviation? The Circuit Court of Appeals drew

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*(Inserted by petitioner.)

an inference contrary to the only direct testimony on this point, that the vessel went to Sydney, C. B., for bunkers for a subsequent voyage and not for bunkers for the remainder of her voyage to New York and that such act constituted a deviation. The vessel actually took sixty-two and one-half tons of coal at Sydney. We submit that the Circuit Court of Appeals has missed the point.

III. Was not citrate of lime in specie, which contained approximately 60 per cent. citric acid content, in damaged condition when it only contained 64 per cent. citric acid content in sound condition, the citric acid content being the only valuable part of the commodity?

Reasons For Granting the Writs.

For the reasons assigned, we respectfully submit, that this Court should exercise its power to take up these cases on *certiorari* and set aside the findings made by the Circuit Court of Appeals on the ground that those findings involve the Circuit Court of Appeals in serious errors of law.

A. The Court erred in holding that there need be no causal connection between the lack of due diligence required by Section 3 of the Harter Act to make the vessel seaworthy in all respects, properly manned and equipped and the negligence in navigation or management causing the damage in order to deprive the owner of the exemption from liability given by said section.

B. That the ruling appears contrary to the principles applied in *The Turret Crown* (284 Fed. 439, 444, in the Circuit Court of Appeals for the Fourth Circuit).

C. The Court erred in holding that a steamer making a voyage by stages must commence each stage with a fuel supply adequate and proper for that stage and that the failure to exercise proper diligence in this regard at the commencement of any stage deprives the owner of the exemptions of Section 3 of the Harter Act, whether the cargo loss resulting from negligent navigation occurs during that stage or not.

It is of great commercial importance to the public, shippers, underwriters and steamship owners to have definitely determined whether there must be causal connection between the cause of the damage and the lack of due diligence required in Section 3 of the Harter Act in order to deprive the owner of the steamship of the exemptions provided in that section. This point has never been passed upon by this Court nor even discussed by it. There is an apparent conflict of authority between the statements contained in the decisions referred to in the brief attached to this petition and the decisions in the Circuit Court of Appeals in these cases and it is of first importance to have the matter definitely determined and a uniform decision on a commercial question of such magnitude as this.

D. The Court erred in basing a finding of fact that the vessel went to Sydney for bunkers for a subsequent voyage upon a mere inference which was contrary to the only direct evidence in these cases upon this point.

E. The Court erred in finding that the question of deviation was a question of intention and the fact that the "Willdomino" did not obtain bunkers for a subsequent voyage at North Sydney was immaterial, which ruling is directly contrary to *Marine Insurance Company v. Tucker*, 3 Cranch 357, 393, holding that an

intention to deviate is not a deviation unless the intention be carried into execution.

F. The Court erred in holding that the citrate of lime was not in specie when tendered to the respondent Charles Pfizer & Company by the petitioners when the uncontradicted evidence shows that there had been no chemical change in the citrate of lime, that this commodity was merely citric acid absorbed by chalk, the citric acid content being the only valuable part of the commodity and that the citric acid content of the merchandise in damaged condition was approximately 60 per cent., while the citric acid content of the sound merchandise was 64 per cent.

ACCOMPANYING DOCUMENTS.

A certified copy of the transcript of record and of the proceedings of the District Court and the Circuit Court of Appeals is presented herewith.

WHEREFORE, your petitioners respectfully pray that writs of certiorari may be issued out of and under the seal of this Honorable Court, directed to the United States Circuit Court of Appeals for the Third Circuit, demanding the said Court to certify and send to this Court for its review and determination on a day certain to be therein designated, a full and complete transcript of the record of all proceedings in the said Circuit Court of Appeals in the said cases entitled in that Court: Citro Chemical Company of America, Appellant, v. Steamship "Willdomino," her engines, boilers, etc., Appellee, No. 50, October Term 1923; Charles Pfizer & Company, Inc., Appellant, v. Steamship "Willdomino," her engines, boilers, etc., Appellee, No. 51, October Term 1923; Charles Pfizer & Company, Inc., Appellant, v. Convoy Steamship Company, Ltd., owner of the Steamship "Willdomino," her en-

gines, boilers, etc., No. 52, October Term 1923; and that the said decrees of the Circuit Court of Appeals made and entered in the said cases on the fourth day of June, 1924, may be reversed by this Honorable Court and that your petitioners may have such other or further relief or remedy in the premises as to this Honorable Court may seem meet and just, and that your petitioners will ever pray, etc.

CONVOY STEAMSHIP COMPANY, LTD., on its own behalf and as claimant of the SS. "Willdomino," her boilers, engines, etc.,

By H. ROBERT BURNEY,
Treasurer.

FRANCIS RAWLE,
GEORGE W. BETTS, JR.,
GEORGE C. SPRAGUE,
JOSEPH W. HENDERSON,
Counsel for Petitioners.

STATE OF NEW YORK,
COUNTY OF NEW YORK, } *ss.:*

H. ROBERT BURNEY, being duly sworn, says:

I am the Treasurer of the Convoy Steamship Company, Ltd., which is a corporation of Nova Scotia, and on its own behalf and as claimant of the SS. "Willdomino," the petitioners herein, I make this affidavit.

I have read the foregoing petitions and have knowledge of this litigation; the matters stated in the petitions are true to the best of my knowledge, information and belief.

Sworn to before me this 29th day of August, 1924. } H. ROBERT BURNEY.

JOSEPH A. BARRETT,
Notary Public.
Westchester County,
Certificate filed in Westchester County Register's Office,
New York County Clerk's No. 559,
New York County Register's No. 5406,
Commission expires March 30, 1925.
(Seal)

We hereby certify that the foregoing petition in our opinion is well founded and entitled to the favorable consideration of the Court, and that it is not filed for the purpose of delay.

FRANCIS RAWLE,
GEORGE W. BETTS, JR.,
GEORGE C. SPRAGUE,
JOSEPH W. HENDERSON,
Counsel for Petitioners.

IN THE SUPREME COURT OF THE UNITED STATES.

Steamship Willdomino, Her Engines, Boilers, Etc.,
Petitioner (Respondent Below),
against
Citro Chemical Company of America,
Respondent (Libelant Below).
October Term, 1924.
No.

Steamship Willdomino, Her Engines, Boilers, Etc.,
Petitioner (Respondent Below),
against
Charles Pfizer & Company, Inc.,
Respondent (Libelant Below).
October Term, 1924.
No.

Conroy Steamship Company, Ltd.,
Owner of the Steamship Willdomino, Her Engines, Boilers, Etc.,
Petitioner (Libelant Below),
against
Charles Pfizer & Company, Inc.,
Respondent (Respondent Below).
October Term, 1924.
No.

BRIEF FOR THE PETITIONERS.

The facts are summarized in the petition.

POINT ONE.

THE DECISION OF THE CIRCUIT COURT OF APPEALS THAT THE PETITIONERS WERE NOT RELEIVED FROM LIABILITY UNDER SECTION 3 OF THE HARTER ACT, FOR THE CARGO DAMAGE CAUSED BY NEGLIGENT STRANDING, WAS ERRONEOUS.

The Circuit Court of Appeals found that the ship was unseaworthy, but that "the proximate cause of the

stranding of the 'Willdomino,'' from which the libellants' original loss resulted, was not unseaworthiness of the ship.'' It held that if the carrier fails to meet the burden of showing due diligence to make the vessel seaworthy ''he is liable for damage to the cargo resulting from negligence of the master and crew in the navigation or management of the vessel and the carrier is so liable wholly without regard to whether or not there was any causal connection between the lack of due diligence to make the ship seaworthy in all respects and the loss caused by the negligence in navigation or in the management of the vessel.''

Section 3 of the Harter Act (27 Stat. 445) reads as follows:

> ''SEC. 3. That if the owner of any vessel transporting merchandise or property to or from any port in the United States of America shall exercise due diligence to make the said vessel in all respects seaworthy and properly manned, equipped, and supplied, neither the vessel, her owner or owners, agent, or charterers shall become or be held responsible for damage or loss resulting from faults or errors in navigation or in the management of said vessel nor shall the vessel, her owner or owners, charterers, agent, or master be held liable for losses arising from dangers of the sea or other navigable waters, acts of God, or public enemies, or the inherent defect, quality, or vice of the thing carried, or from insufficiency of package or seizure under legal process, or for loss resulting from any act or omission of the shipper or owner of the goods, his agent or representative, or from saving or attempting to save life or property at sea, or from any deviation in rendering such service.''

Admitting for the purpose of the argument that sailing from Lisbon and Ponta Delgada with insufficient bunkers to reach New York constituted unsea-

worthiness we contend that the Circuit Court of Appeals misconstrued the aforesaid section in its application to these cases.

Its construction of Section 3 makes no allowance for those cases in which the owner has failed to exercise due diligence to make the vessel seaworthy in some respect not connected with the negligent navigation or management, causing the cargo damage, but requires in all cases as an absolute condition precedent to exempt the owner from liability for such damage that he shall have used due diligence to make the vessel seaworthy in every respect.

If the Court has correctly interpreted Section 3, it follows that an owner who fails to exercise due diligence in inspection of any of the thousand and more parts of the ship and her equipment immediately prior to her sailing, and she sails with any one of those parts defective and the defect in no wise contributes to subsequent damage to cargo caused by negligent navigation or management, nevertheless he is deprived of the protection afforded by said section. A carrier might thus be held liable in damages where the vessel sailed with a defective refrigerating plant, defective life boat, lacking a spare anchor, having taken insufficient precautions to keep down vermin, a broken plate on the galley stove or a broken rung in the ladder, although the condition of none of said parts in any way contributed to the cargo damage which was caused solely by negligence in navigation and management.

Such an interpretation leads to injustice and absurd conclusions. It leads to injustice because it holds a carrier liable for damage which in no way resulted from his wrong. It leads to absurd conclusions because of the extent to which the doctrine could be carried and the carrier held liable for immense cargo damage caused by negligent stranding where he had

failed only in one minor particular of inspection in one of a possible thousand different items of the ship's equipment in no way connected with the stranding causing the damage.

A literal construction of the phrase "in all respects" used in Section 3 of the Harter Act might lend some weight to such an interpretation, but a study of the act in connection with well-established legal principles, and the rules of statutory construction, shows very clearly that Congress did not intend the phrase so to be construed.

It is elementary law "that if one does wrong from which no legal injury ensues, there is no legal cause of action; it is *injuria sine damno.*" *Sutherland on Damages* (4th ed.) I, section 3, page 5.

Congress did not intend any construction of the phrase "in all respect" which would lead to injustice, and absurd conclusions, as it doubtless in drafting Section 3 had in mind the well-known rule of statutory construction laid down by Mr. Justice Field in *United States v. Kirby*, 7 Wall. 482, and followed by this Court ever since.

In that case, this Court construed a statute providing for a fine of $100 against "any person" who knowingly and wilfully obstructed the United States mails, and held that the term "any person" did not apply to a sheriff who went aboard a steamer carrying the United States mails and served a warrant for murder upon the mail clerk. Mr. Justice Field there laid down the following rule (pp. 486, 487):

> "All laws should receive a sensible construction. General terms should be so limited in their application as not to lead to injustice, oppression, or an absurd consequence. It will always, therefore, be presumed that the legislature intended exceptions to its language, which would avoid results of this character. The reason of the law in such cases should prevail over its letter.

> "The common sense of man approves the judgment mentioned by Puffendorf, that the Bolognian law which enacted, 'that whoever drew blood in the streets should be punished with the utmost severity,' did not extend to the surgeon who opened the vein of a person that fell down in the street in a fit. The same common sense accepts the ruling, cited by Plowden, that the statute of 1st Edward II, which enacts that a prisoner who breaks prison shall be guilty of felony, does not extend to a prisoner who breaks out when the prison is on fire—'for he is not to be hanged because he would not stay to be burnt.'"

The rule was followed in *Holy Trinity Church v. United States*, 143 U. S. 457, wherein the Court interpreted the Immigration Act (23 Stat. 332), which made it unlawful for any person "to prepay the transportation . . . of any alien . . . under contract . . . to perform labor or service of any kind in the United States." The Circuit Court for the Second Circuit had held the contract between Holy Trinity Church of New York with an English minister to come to New York and act as its rector was within the prohibition of the statute. That decision was reversed by this Court. We quote from the opinion as follows (pp. 458, 459):

> "It must be conceded that the act of the corporation is within the letter of this section, for the relation of rector to his church is one of service, and implies labor on the one side with compensation on the other. Not only are the general words labor and service both used, but also, as it were to guard against any narrow interpretation and emphasize a breadth of meaning, to them is added 'of any kind'; and, further, as noticed by the Circuit Judge in his opinion, the fifth section, which makes specific exceptions, among them professional actors, artists, lecturers, singers and domestic servants, strengthens the idea that every

other kind of labor and service was intended to be reached by the first section. While there is great force to this reasoning, we cannot think Congress intended to denounce with penalties a transaction like that in the present case. *It is a familiar rule, that a thing may be within the letter of the statute and yet not within the statute, because not within its spirit, nor within the intention of its makers.** This has been often asserted, and the reports are full of cases illustrating its application. This is not the substitution of the will of the Judge for that of the legislator, for frequently words of a general meaning are used in a statute, words broad enough to include an act in question, and yet a consideration of the whole legislation, or of the circumstances surrounding its enactment, *or the absurd results which follow* from giving such broad meaning to the words, makes it unreasonable to believe that the legislator intended to include the particular act."

The doctrine was reaffirmed and followed by this Court in:

Lau Ow Bew v. United States, 144 U. S. 47;
Knoulton v. Moore, 178 U. S. 41, 77;
Hawaii v. Mankichi, 190 U. S. 197;
Pickett v. United States, 216 U. S. 456;
Baender v. Barnett, 255 U. S. 224.

We submit that what Congress did intend as the real purpose of Section 3 was to exempt the carrier from damage due to negligent navigation or management, and as Congress did not wish to include in negligent management the acts of preparing a vessel for the voyage and thus relieve the shipowners from liability where such acts were in themselves the active causes of the damage, it adopted the proviso that the owners should exercise due diligence to make the ves-

*All italics in this brief are ours.

sel in all respects seaworthy. If damage occurred by stranding through the owners' failure to exercise due diligence in selecting the navigating officers who took the vessel to sea or in the failure to supply such officers with proper navigating instruments, compasses, charts or sounding machines, the owner was to be responsible; but where the owner had used due diligence in the selection of the navigating officers and in supplying them with proper navigating instruments, compasses, charts, sounding machines and all other equipment required for navigation, and the stranding occurred through the failure of the officers to properly use these instruments, then the owner was not to be liable, even though the owner had failed to exercise due diligence to make the vessel seaworthy in some particular that had no bearing on the stranding.

Professor Frederick Green, in 1903, ably discussed the effect of this proviso of Section 3 in an article in 16 Harvard Law Review, 157, 167, entitled "The Harter Act":

> "Suppose, however, that there has been neither seaworthiness nor diligence to make seaworthy, yet that damage results solely from fault in navigation. A steamship has a cracked shaft that will be dangerous in rough weather, but by negligence the crack is not discovered and she is permitted to sail without repair. No rough weather occurs. The steamer crosses the ocean in safety, but negligently comes into collision in the harbor of destination. Is the owner, who would not have been made liable for damage to his cargo by the negligent failure to examine the shaft before sailing, provided it had not been cracked, to be rendered liable by the mere fact that a crack in it existed, although its existence had not the slightest connection with the damage? The proviso is whimsical, if for such an irrelevant accident it excludes the owner from an exemption he would otherwise receive.

"No case has been found in which the owner was so excluded. Although the passage last quoted from the opinion of the Supreme Court may seem at first sight to say that he should be excluded, it will appear on examination that it does not say so.* It means that if the cause of the loss is a failure to use care to make seaworthy, the case is not within the exemption, even though such failure is a fault in management. It does not mean that exemption would be refused for a fault in management, because of a failure to use care to make seaworthy, distinct from the fault in management and not contributing to the loss.

"The sole effect of the proviso seems to be that which has just been suggested. When section three says that the owner shall not be liable for fault in navigation or management, provided diligence has been used to make seaworthy, it excludes from fault in management all carelessness in preparing the vessel for the voyage. Under this interpretation, the act is reasonable and consistent, and its language is such as might naturally be used to express its intent. The interpretation is a literal one as well. For the diligence to which the proviso refers is diligence which it is the carrier's duty to employ. But so far as concerns liability for damage to cargo, his only duty is to avoid such damage, and, if no damage results from his lack of diligence, the carrier is at liberty to be as careless as he pleases. If his lack of diligence does not contribute to the damage, he has used all the diligence that was due, and the proviso is fulfilled. That this is true when the vessel is seaworthy, has already been seen, and it proves that the act is not intended to deprive the owner of exemption, merely because he is careless in equipping his ship. *In short, it means, it is submitted, that the damage for which exemption is granted, must not be damage resulting from failure to employ that*

*See International Navigation Co. v. Farr and Bailey Mfg. Co., 181 U. S. 218, 226.

diligence in preparing the vessel for sea upon the exercise of which the act insists. The proviso is inserted only to make it clear that the exoneration granted is in no way to derogate from the obligation to take due care for seaworthiness. It was necessary to insert it because fault in management might otherwise be supposed to include fault in equipping the vessel for sea. There are English cases in which even the phrase 'improper navigation' was held to include such fault."

Athough the Circuit Court of Appeals in its opinion cited the following cases as supporting its interpretation of Section 3, *International Navigation Co. v. Farr and Bailey*, 181 U. S. 218; *The Southwark*, 191 U. S. 1; *The Wildcroft*, 201 U. S. 378, an examination of the facts in those cases will show that the Court in none of them was called upon to say that if the vessel were unseaworthy, or that due diligence had not been exercised to make her so, the owners would be liable for damages arising from faulty navigation without regard to whether or not there was any causal connection between the lack of due diligence to make the ship seaworthy in all respects and the loss caused by negligence in navigation or in the management of the vessel.

The exact question has never been passed upon by this Court nor so far as we are able to find even discussed by this Court.

There have, however, been cases in District Courts and other Circuit Courts of Appeals where a contrary construction has been placed upon Section 3 of the act.

In *The Turret Crown*, 282 Fed. 354, 359, Judge Ward found that the vessel was unseaworthy in respect to her steering gear at the time she sailed and that the owners had knowledge thereof.

In an opinion, in which he dismissed a libel filed by the cargo-owners, he said:

> "But the question is whether this unseaworthiness, whose defects were fully developed before water got into the fuel tanks, *contributed to the bottom damage which injured the cargo.* Of course, after the fuel oil gave out, the steering gear, even if perfect, would have been of no possible consequence. The deck log continuously describes the behavior of the steamer in the sea down to the time when she turned back as 'rolling heavily.' Rolling does not imply the pitching which causes bottom damage. Even if the vessel fell off so far as to be in the trough of the sea, there would be no pounding. It seems to me that the breaking down of the steering gear, instead of increasing, decreased the strain upon the vessel. (P. 359.)
>
> . . . . . .
>
> "If forcing the steamer into the sea, whether a head sea or a following sea, at a speed sufficient to give steerageway, did contribute to the bottom damage, it was an error in navigation and management of the vessel, for which the claimant is excused by the Harter Act." (P. 360.)

The Circuit Court of Appeals reversed the decree (297 Fed. 766) because it found that the unseaworthy condition of the vessel at the time of the inception of the voyage *had a causal connection* with the damage to the double bottom tanks which caused the damage to the libelants' goods. We quote from the opinion as follows at page 773:

> "We are satisfied that the defects in the steering gear added to the strains on the vessel as qualified experts declared. *The proximate cause of the distress of the ship which ultimately required her to return to port was the defective condition of the steering gear.* The failure of the steering gear and inability to control the vessel

produced a wrenching and straining and pounding of the vessel which in turn resulted in damage to the tanks. It was an unseaworthy condition of the vessel. . . ."

And at page 774:

"The defects in the steering gear were fully developed before there was any trouble with the vessel's fuel tanks. The trouble with the fuel tanks arose some twenty-four hours after the steering gear had developed serious defects and prevented the vessel from being properly steered and required her to stop. . . .

"In the view we take of the evidence, the conclusion is irresistible that the damage to the double bottom tanks of the ship was due to the added strains to which they were subjected by reason of the defective steering gear. In this view of the case, the appellee is liable."

It will be observed therefore that the statement of the law as to causal connection as laid down by Judge Ward was not overruled by the Circuit Court of Appeals, but was in fact practically affirmed, inasmuch as the Circuit Court of Appeals found a causal connection between the unseaworthiness and the negligent navigation which the District Judge had been unable to find.

In *The Turret Crown*, 284 Fed. 439, 444, in the Circuit Court of Appeals for the Fourth Circuit, the opinion of the Court stated that it had before it a copy of the opinion of Judge Ward in *The Turret Crown*, 282 Fed. 354, in the Southern District of New York, in which, as the opinion states, Judge Ward had found that the owners were negligent in failing to correct a defective steering gear, but had found "the cause of the cargo damage was the water taken into the fuel tank through the bottom" and "that this was

not caused by the unseaworthiness of the vessel." The opinion then proceeded to say:

> "If we accept, as we are disposed to do, his finding of the facts in this regard, it would seem to follow, of course, that, *there being no causal relation between the unseaworthiness and the damage*, no advantage may properly be taken of the former."

The Circuit Court of Appeals for the Sixth Circuit, in the *R. P. Fitzgerald*, 212 Fed. 678, 686, said that the statute protects the carrier "if in spite of the negligence and notwithstanding the injury therefrom, his vessel is seaworthy *as against such acts*, or he has used reasonable diligence to make it so."

These are the only cases that we have found directly in point. There are, however, several analogous cases arising under the act for "Limitation of Ship Owners Liability" (9 Stat. 635), in all of which the Court has held that the owner could limit his liability even though he was privy to the unseaworthiness of the vessel *provided said unseaworthiness was not the proximate cause of the loss or disaster.* We refer to the *City of Para*, 44 Fed. 689, 691; *The Thessaloniki*, 267 Fed. 67; *In re Rapid Transit Ferry Co.*, 124 Fed. 786.

In *The Thessaloniki*, the Circuit Court of Appeals for the Second Circuit, in allowing the limitation of liability, said:

> "The only charges of unseaworthiness in the pleadings and in the proofs are connected with the boilers, engines and sounding pipes. We may assume them all to be established and the only result would be delay in the prosecution of the voyage."

There are also analogous cases arising under the International Rules for Prevention of Collisions at

Sea, in which the Courts have held that a vessel is not liable for a collision where she has violated one of the rules, provided this violation has not in any way contributed to or caused the collision. *The Blue Jacket*, 144 U. S. 371; *The Clara*, 55 Fed. 1021; *The La Bretagne*, 179 Fed. 286; *The No. 1*, 180 Fed. 969; *The Morristown*, 278 Fed. 714.

We call the Court's attention to the fact that the parties to these proceedings left no room for doubt as to their understanding of the undertaking, inasmuch as they included in the bill of lading a clause reading:

> "The ship and carrier shall not be liable for loss or damage occasioned by the perils of the seas or other waters . . . collision, stranding or other accidents of navigation of whatsoever kind, even where occasioned by the negligence, default or error in judgment of the pilot, master, mariners or other servants of the shipowner."

We submit, therefore, that both upon necessary principle and upon the sole authorities found in the books, causal connection must be shown between the lack of due diligence to make the vessel seaworthy and the negligent navigation and management in order to deprive the owner of the exemption from liability provided in Section 3 of the Harter Act.

The decision of the Circuit Court of Appeals on this point was entirely decisive of both cargo damage cases. If the Court was wrong in thus construing Section 3, then its reversal of the decrees of the District Court in the cargo damage cases was erroneous, no matter how correct its other findings may have been.

The question is one of great importance to shipowners and underwriters generally, and we respectfully submit that a definite interpretation of Section

3 of the Harter Act by this Court is needed at this time, and that your Honorable Court should grant its writs of certiorari requested in the petition.

Point Two.

The Finding of the Circuit Court of Appeals That the "Willdomino" Deviated By Putting Into the Port of Sydney Finds No Support in the Evidence or the Law.

The "Willdomino" had the right under the bills of lading to go to Sydney. She exercised her rights.

The bills of lading gave the vessel "liberty to call at intermediate ports or any port or ports in or out of the customary route in any order to receive and discharge coal, cargo, passengers and for any other purposes . . ."

> "Eighth: *The ship has liberty of filling up and/or bunkering at any port or ports in or out of the way.*"

It is difficult to imagine any deviation clauses broader than those printed above. Shipowners are clearly allowed the privilege of making such provisions by contract.

In *South Atlantic S. S. Line v. London-Savannah Naval Stores Co.*, 225 Fed. 306, the Circuit Court of Appeals for the Fifth Circuit said of a clause similar to that contained in the bill of lading in these cases (p. 310):

> "There is no law standing in the way of a shipper under a maritime contract binding himself by an agreement that the vessel carrying his goods, constituting only a part of its cargo, is to have the privilege expressed by that provision just quoted."

The distance from Lisbon to New York via North Sydney was only about 300 miles further than the direct route. This was a reasonable additional distance for the vessel to make for the purpose of bunkering.

In *The Blandon*, 287 Fed. 722, it was held, under a clause similar to the first deviation clause contained in the bill of lading and quoted above, that a vessel sailing from New York to Valencia, Spain, had the right to put into Philadelphia, which involved going in and out of the Capes a greater distance than the change made by the "Willdomino" in going to Sydney.

The District Court found that the "Willdomino" was clearly within her rights in going to North Sydney. The Circuit Court of Appeals, although not denying the right of the vessel to go to North Sydney for bunkers for the remainder of the voyage to New York, found as a fact that the vessel went there for the purpose of obtaining bunkers for a subsequent voyage, and that this was a deviation, citing *Austrian Union Steamship Co. v. Calafiore*, 194 Fed. 377. The *Austrian Union S. S. Company* case did not involve the taking on of bunkers for a subsequent voyage, but did involve the taking on of cargo for a subsequent voyage, during the loading of which cargo the fruit cargo already on board suffered serious loss. That case is not an authority in point.

The opinion of the Circuit Court of Appeals herein states "It is true that there is no direct evidence that it was the purpose to obtain at Sydney coal for a subsequent voyage," but draws the inference from the cable of the owners to the master at Gibraltar instructing him to coal at North Sydney and from the testimony in the case that such was the intention.

(a) The cable has been heretofore set forth at length in the petition, *infra* page 6.

The entire direct testimony on this point is that of George T. Williams, president of the petitioner, Convoy Steamship Company, Limited, who was examined at length before the District Judge.

(b) The testimony:

Cross-examination (Record, p. 71, fols. 213-215):

"Q. But did you give your master standing orders to coal at Sydney?

A. I don't know as he had standing orders. We have made it a sort of practice to coal at North Sydney; as I recall it, along about that period we were having great difficulty in getting ship's bunkers on the Atlantic Coast of the United States, as you know in those days there were many embargoes on coal, and so on.

Q. Well, did the master of the *Willdomino* have orders to coal this vessel at Sydney?

A. You mean on this particular voyage?

Q. Yes.

A. I don't know; he might have had; you mean at the time of leaving Lisbon?

THE COURT: If you don't know, why just say so.

Q. Why were you hesitating about that answer?

A. Well, I am hesitating as to whether it was when he was at Lisbon or at Ponta Delgada.

Q. When he was at Ponta Delgada, did he have orders to coal at Sydney?

A. I think he naturally would have had orders to coal at the nearest coaling port, which would have been North Sydney."

Recalled; cross-examination (Record, p. 234, fols. 702-704):

"Q. How big were the bunkers of the *Willdomino*, and how much coal would she take?

A. Permanent bunkers about 650 tons and reserve bunker in her bridge deck about 802 tons.

Q. So she could carry about 1400 tons of coal?

A. 1,450.

Q. Did you anticipate that when the vessel sailed from Ponta Delgada that she would go to Sydney and there take on approximately 1400 tons of coal?

A. No. We may have given him orders to proceed to the nearest coal port, which would have been North Sydney from Ponta Delgada.

Q. If he could have gotten it there, was it the duty of the master when he got to Sydney to fill up his bunkers with coal there?

MR. SPRAGUE: I object to that question as to what the duty of the master was.

THE COURT: I will permit it.

A. It might be considered his duty, but since we were able to get in touch with North Sydney we would have given the instructions."

Recalled; cross-examination (Record, p. 862, fols. 2584-2588):

"Q. When you sent this cable to your master directing him to go to Sydney, didn't you intend that he should at North Sydney take on bunkers for the return trip to Europe?

A. No, sir. We hadn't any voyage fixed.

Q. Well, for the next trip that this vessel should make to sea?

A. *No, sir.*

Q. You didn't intend that he should take on enough coal to go to sea again?

A. *No, sir, hadn't any next voyage in mind.*

Q. Did you intend that he should take on enough coal at North Sydney to coal some other ship of yours from an Atlantic port to sail?

A. *No, sir.*

Q. Now, that is exactly what the *Willdomino* had done on the preceding trip, wasn't it?

A. After we arrived at North Sydney, we did that, yes.

Q. On the preceding trip of the *Willdomino* you had her coal in North Sydney?

A. Yes, sir.

Q. For her requirements to get to New York and then sail again?

A. No, to transfer coal to some other British steamers.

Q. That you owned?

A. That we owned.

Q. Now, then, on that other trip that the *Willdomino* stopped at North Sydney, she was coming from the Baltic Sea, wasn't she?

A. No, sir.

Q. Where was she coming from?

A. St. Nazaire, France.

Q. That is considerably further north than Lisbon, isn't it, that port?

A. Yes.

Q. St. Nazaire was the last place that this vessel stopped in Europe on the preceding trip?

A. It is where she discharged her cargo and sailed for North Sydney under ballast.

Q. Then she wasn't in danger to any other cargo on that preceding trip when she stopped at Sydney for coal, was she?

A. No, sir.

Q. No other cargo to be injured?

A. No cargo aboard of her.

Q. Is that the only other time the *Willdomino* stopped at North Sydney while under your management and before the accident?

A. I think so."

The finding of the Circuit Court of Appeals has been deduced from the realms of speculation and conjecture and is directly contrary to the direct testimony. Its finding should be disregarded by this Court and a finding made in accordance with the testimony. The District Judge found no such intent and it is to be recalled that the District Judge personally saw the witness and had every opportunity to ascertain all the facts in order to clear up any question that might re-

main in his mind with reference to the question of intent. There was no doubt in his mind upon this question and he found there was no such intent. The District Judge's finding is the correct one and we submit is the one to which this Court should give much credit in determining the fact, and if this Court should agree with the District Court in its finding, then the owner is entitled to his bill of lading provisions and, more especially, as to the provision relative to the limitation of $100 per package.

Mere intention does not constitute a deviation unless the intention be consummated.

The Circuit Court of Appeals found that the intention was to obtain at North Sydney bunkers for a subsequent voyage, but the facts are that the *vessel did not actually obtain bunkers at Sydney for a subsequent voyage,* but only sufficient to take her to Halifax, where in turn she got sufficient to bring her to New York. The Circuit Court of Appeals held that this was immaterial, "for it is the purpose of the deviation and not the consummation of that purpose that is the test in the matter of deviation." We respectfully submit that this holding is erroneous inasmuch as it is contrary to the rule laid down by this Court in *Marine Insurance Co. v. Tucker,* 3 Cranch 357, 393, to the effect that an intention to deviate is not a deviation unless the intention be carried into execution. To the same effect *North British & Mercantile Insurance Co. v. H. Baars & Co.,* 255 Fed. 625, 626. If it is intention to do the act rather than the act itself that constitutes deviation, as stated by the Circuit Court of Appeals, then an owner who sent his vessel to a port intending to obtain bunkers for a subsequent voyage and the vessel upon arriving finding the supply limited or the price exorbitant bought only bunkers for the ensuing part of the present voyage would be guilty of devia-

tion, whereas another owner whose ship was making the same voyage and who ordered her to the same port to obtain bunkers for the balance of the present voyage would not be guilty of deviation if upon the ship's arrival and finding coal cheap he should buy a thousand tons of coal for the ensuing voyage.

We submit that the doctrine as laid down by the Circuit Court of Appeals on this point cannot be sustained.

If the finding of the Circuit Court of Appeals on deviation is not to be disturbed nevertheless the deviation as a matter of law was justifiable.

The Court found that the "Willdomino" did not have sufficient coal at Lisbon or Ponta Delgada to enable her to reach New York.

The law is well settled that under such circumstances it was the duty of the master to put into Sydney, which was the nearest port, to save the ship, cargo and crew.

The Circuit Court of Appeals for the Fourth Circuit in *The Turret Crown,* 284 Fed. 439, and the Circuit Court of Appeals of the Second Circuit in a case of the same name, *The Turret Crown,* 297 Fed. 766, both held that the act of the master in putting into a port of refuge to save the ship, cargo and crew was a justifiable deviation *although the predicament in which he found himself was caused by the owner sending the vessel to sea in an unseaworthy condition.*

Both of these cases follow *Kish v. Taylor,* (1912) A. C. 604, in the House of Lords, which reversed the judgment in that case reported in (1911) 1 K. B. 625, and upheld the decision of Walton, J., in (1910) 2 K. B. 309.

The following is the language of *Kish v. Taylor* as quoted in *The Turret Crown*, 284 Fed. 439, 446:

> " . . . It is prima facie not only the right but the duty of the master of a ship to deviate from the course of his voyage and seek a harbor or place of safety, if that be reasonably necessary in order to save his ship and the lives of his crew from the perils which beset them. . . .
>
> . . . . . .
>
> "So that the question for decision, resolves itself into this: Is it the presence of the peril and not its cause which determines the character of the deviation, or must the master of every ship be left in this dilemma, that whenever, by his own culpable act, or a breach of contract by his owner, he finds his ship in a perilous position, he must continue on his voyage at all hazards, or only seek safety under the penalty of forfeiting the contract of affreightment? Nothing could, it would appear to me, tend more to increase the dangers to which life and property are exposed at sea than to hold that the law of England obliged the master of a merchant ship to choose between such alternatives."

For the purpose of correcting the errors of the Circuit Court of Appeals, it is respectfully submitted that your Honorable Court should grant its writs of certiorari in these cases.

Point Three.

The Circuit Court of Appeals Was in Error in Holding That the Citrate of Lime Was Not in Specie at the Time Delivery Was Tendered to the Respondent Pfizer & Company, Incorporated, and in Reversing the Decree for Petitioner on the Cross-Libel for Freight.

The bill of lading for the citrate of lime shipped to the respondent Charles Pfizer & Company, Incorpo-

rated, contained the following provisions regarding payment of freight:

> "Freight on the goods and charges as per margin New York, ship lost or not lost.
>
> "Ninth. Full freight is due on damaged goods and on all goods diminished by leaking . . ."

The rule is well established that freight is due upon tender of delivery of shipment, unless "there has been a destruction of the article in specie", *Hugg v. Augusta Insurance & Banking Co.*, 7 How. 595, 606, and cases therein cited; *Washburn & Moen Mfg. Co. v. Reliance Marine Insurance Co.*, 179 U. S. 1, 9; *Scrutton on Charter Parties*, 9th Ed., Article 141; *Abbotts Law of Merchant Ships and Shipping*, 14th Ed., pages 701, 711.

Citrate of lime consists of chalk as a carrier for citric acid. The citric acid content in the citrate of lime when shipped was 64 per cent., according to the invoice. The citric acid content of the samples of the damaged citrate of lime taken at the time the vessel was in drydock varied from 26 to 42 per cent., without taking into account the amount of water in the samples, which was about 50 per cent. Taking into account the water in the samples when the test was made, the citric acid content of these samples of the damaged merchandise was about 60 per cent. on the dry basis, which was the basis used on the invoice of the sound goods. There was therefore merely a loss of about 7 per cent. in the citric acid content of the citrate of lime. The citric acid content is the only element of value in citrate of lime, and the combination of the citric acid with the chalk is used merely for the purpose of convenient transportation of the citric acid. No chemical reaction results from the immersion of citrate of lime in sea water and no change is made

in the compound thereby except that bacteriological growth takes place for a time during which the citric acid content is slightly diminished. It therefore appears that the goods in their damaged condition were still citrate of lime and in specie and that the petitioners were entitled to their freight thereon under the terms of the bills of lading. The only basis given by the Circuit Court of Appeals for its finding that the goods were not in specie was that the petitioner sold the damaged merchandise for about $3000 after the respondent Charles Pfizer & Company, Incorporated, had refused to accept tender of delivery and had abandoned it to the petitioner and had told the petitioner that it was a total loss. We submit that this is no basis for such a finding in view of the uncontradicted testimony in the case, which has been summarized above.

Conclusion.

The points upon which the petitioners rely have been clearly set forth in the headings and argument in this brief. We feel that these are proper cases for the issuance of writs of *certiorari*.

Respectfuly submitted,

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(3)

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Supreme Court of the United States

Nos. 165, 166, 167. October Term, 1925.

Steamship "WILLDOMINO", Her Engines, Boilers, Etc.,
Petitioner (Respondent Below),
against
CITRO CHEMICAL COMPANY OF AMERICA,
Respondent (Libellant Below).

Steamship "WILLDOMINO", Her Engines, Boilers, Etc.,
Petitioner (Respondent Below),
against
CHARLES PFIZER & COMPANY, Inc.,
Respondent (Libellant Below).

CONVOY STEAMSHIP COMPANY, Ltd., Owner of the Steamship "WILLDOMINO", Her Engines, Boilers, Etc.,
Petitioner (Libellant Below),
against
CHARLES PFIZER & COMPANY, Inc.,
Respondent (Respondent Below).

On Writs of Certiorari to the Circuit Court of Appeals for the Third Circuit.

Brief for Petitioners.

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IN THE

Supreme Court of the United States.

STEAMSHIP "WILLDOMINO," HER ENGINES, BOILERS, ETC., *Petitioner (Respondent Below),* *against* CITRO CHEMICAL COMPANY OF AMERICA, *Respondent (Libellant Below).*	October Term, 1925. No. 165.

STEAMSHIP "WILLDOMINO," HER ENGINES, BOILERS, ETC., *Petitioner (Respondent Below),* *against* CHARLES PFIZER & COMPANY, INC., *Respondent (Libellant Below).*	October Term, 1925. No. 166.

CONVOY STEAMSHIP COMPANY, LTD., Owner of the Steamship "Willdomino," Her Engines, Boilers, Etc., *Petitioner (Libellant Below),* *against* CHARLES PFIZER & COMPANY, INC., *Respondent (Respondent Below).*	October Term, 1925. No. 167.

ON WRITS OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT.

BRIEF FOR PETITIONERS.

Official Reports of the Opinions Below:

The opinion of the District Court (R. 1360) has not been reported.

The opinion of the Circuit Court of Appeals (R. 1425) is reported in 300 Fed. 5.

Statement of the Grounds on which the Jurisdiction of this Court is invoked:

(1) The decrees to be reviewed are those of the Circuit Court of Appeals, dated June 4, 1924 (R. 1441).

The petitions for writs of certiorari were filed September 3, 1924, and the writs were granted October 27, 1924.

(2) The jurisdiction of this Court is based upon the Circuit Court of Appeals Act, March 3, 1891; 26 Stat. 828; 2 Comp. Stat., Sec. 1217.

See *Lutcher & Moore Co. v. Knight*, 217 U. S. 257.

Statement of the Cases:

These cases are here on *writs of certiorari* to the United States Circuit Court of Appeals for the Third Circuit. The petitions were granted by this Court at the October, 1924, Term. The Circuit Court of Appeals reversed the decrees of the District Court, which had dismissed the two libels of the shippers against the "WILLDOMINO" for cargo damage, and had entered a decree in favor of the owner of the "WILLDOMINO" on the cross-libel against the shipper, Pfizer & Company, Inc., for freight. The libels of the shippers, Pfizer & Company, Inc., and Citro Chemical Company of America, were *in rem* and followed the usual form of cargo damage actions alleging respectively that the libellant was the consignee and owner of a consignment of citrate of lime shipped on the "WILLDOMINO" as a common carrier, at Messina, Sicily, on June 10, 1920, in good order and condition, to be carried and delivered in like good order and condition to libellants at New York in accordance with

the terms of the bill of lading. The libels then alleged that upon tender of delivery to libellants, the goods were not in like good order and condition as when shipped, "but short, slack and seriously injured and damaged" (R. 3-5; 25-28). The vessel was seized by the marshal under process in each action.

Convoy Steamship Company, Ltd., filed claims to the "WILLDOMINO" as owner in both cases and obtained her release upon giving stipulations for value, and thereafter filed answers admitting the receipt of the merchandise on board the "WILLDOMINO," the issuance of bills of lading and the tender of delivery to libellants at New York. It pleaded as separate defenses (1) the exemption clause contained in the bills of lading against loss by "collision, stranding or other accidents of navigation"; (2) the provisions of the Harter Act, and (3) the agreed valuation clause in the bills of lading of $100 per package (R. 6-13; 28-37).

Convoy Steamship Company, Ltd., also filed a cross-libel against the shipper libellant, Pfizer & Company, Inc., for unpaid freight on the merchandise for damage to which one of the original libels had been filed (R. 46-49). Pfizer & Company, Inc., answered the cross-libel, admitting that it had refused to accept the merchandise or pay the freight thereon upon the ground that it was not *in specie* (R. 49-52).

The three cases were ordered tried together by Judge Lynch in the United States District Court for the District of New Jersey in admiralty, and were printed in one record and argued together as one appeal and briefed as one appeal before the Circuit Court of Appeals and will be so argued and briefed together before this Court.

The petitioner took the testimony of the officers of the "WILLDOMINO" and the witnesses at Halifax on oral deposition. On February 1, 1923, the cases came on for trial in the United States District Court for the District of New Jersey, and were tried together. The trial continued for five days, February 1, 2, 26, 27 and 28, 1923. A number of witnesses were examined in open court.

The District Court filed its written opinion (R. 1360-1386), dismissing the shippers' libels for cargo damage and ordering a decree in favor of petitioner on the cross-libel for freight. Final decrees were entered on May 15, 1923, in the three cases (R. 1387, 1400, 1412). Notices of appeal were filed May 21, 1923 (R. 1389, 1402, 1414). The cases were argued before the Circuit Court of Appeals on January 28, 1924 (R. 1424). On June 4, 1924, the Circuit Court of Appeals handed down its opinion reversing the three decrees of the Court below (R. 1425-1440).

A petition for a rehearing was filed by petitioner on July 3, 1924 (R. 1443-1458), and denied on July 26, 1924 (R. 1458-1459). Petitions for writs of *certiorari* were filed in this court on September 3, 1924, and the writs were granted October 27, 1924 (R. 1460).

The District Court found that (1) the vessel was seaworthy upon leaving Messina; (2) she was justified under the deviation clause in the bills of lading in going to North Sydney, C. B.; (3) the stranding occurred at a time when competent mariners were exercising due care and diligence, and such stranding was the "proximate cause of the damage inflicted on the citrate of lime by sea water" and petitioner was relieved from liability therefor by the terms of the bills of lading; (4) the petitioner exercised reasonable care of the damaged merchandise after the stranding; (5) the petitioner was entitled to freight on the damaged cargo of respondent, Pfizer & Company, Inc. (R. 1360-1386).

The Circuit Court of Appeals found that (1) the stranding was due to negligent navigation in that the master failed to take sufficient soundings; (2) the ship and the carrier were not entitled to the protection of the provisions in the bills of lading which exempted the ship and the carrier from liability for negligent stranding, inasmuch as these provisions were ineffective so far as they went beyond Section 3 of the Harter Act, and immaterial so far as they gave the same relief as Section 3 of the said Act; (3) the "WILLDOMINO" was unseaworthy upon sailing from Lisbon and

from Ponta Delgada because she had insufficient bunker coal to reach New York, but that this unseaworthiness did not contribute to the cargo damage, the damage being due to negligent navigation and not to unseaworthiness; (4) the ship and carrier were not entitled to the protection of Section 3 of the Harter Act, because the vessel, upon sailing from Lisbon and from Ponta Delgada, was unseaworthy for lack of sufficient bunker coal to reach New York and petitioner did not use due diligence to make her seaworthy in that respect; (5) the vessel went to North Sydney, C. B., for bunker coal for an ensuing voyage as well as for bunker coal to complete her voyage to New York and this was a deviation depriving the vessel and the petitioner of the protection of the agreed valuation clause in the bill of lading; (6) the petitioner failed to take reasonable care of the damaged merchandise after the stranding in that it did not discharge it when the vessel was first drydocked for survey; (7) the merchandise belonging to the respondent, Pfizer & Company, Inc., was not *in specie* when tendered for delivery, and respondent was not liable for the freight thereon (R. 1425-1440).

Statement of Facts.

The petitioner was the owner of the "WILLDOMINO," a steel cargo vessel of 8800 tons deadweight, built in 1919 (R. 58), under the supervision of Lloyd's Register of Shipping, and holding its highest classification for both hull and machinery (R. 875, 918). At Messina, Sicily, on June 10, 1920, she loaded two lots of citrate of lime for delivery at New York, one of 335 casks, of which the respondent, Pfizer & Company, Inc., later became owner, and the other of 168 casks, of which the Citro Chemical Company of America later became the owner. Bills of lading were issued (R. 916, 917), the material portions of which were as follows:

> "SHIPPED by . . . to be transported by the good Steamship 'WILLDOMINO' . . . to NEW YORK with lib-

erty to call at Intermediate Ports or any port or ports in or out of the customary route in any order, to receive and discharge coal, cargo, passengers, and for any other purposes, . . .

"It Is Mutually Agreed as Follows: First: The Ship and carrier shall not be liable for loss or damage occasioned by the perils of the seas or other waters . . . or unseaworthiness of the ship even existing at time of shipment or sailing on the voyage, provided the owners have exercised due diligence to make the vessel seaworthy, by collision, stranding, or other accidents of navigation of whatsoever kind. . . .

"Third: The value of package receipted for as above does not exceed the sum of One Hundred Dollars, unless otherwise stated herein, on which basis the rate of freight is adjusted.

"Eighth: The ship has liberty of filling up and or bunkering at any port or ports in or out of the way.

"Filling up only in ports on the way Westwards of (*sic*) New York." (Clause Eighth was in heavy faced type, the last clause was in handwriting.)

The citrate of lime was a white powder, consisting of chalk impregnated with condensed lemon juice (R. 707), and was in casks weighing, when filled, 1500-1700 pounds apiece (R. 680). It comprised only 10 to 15 per cent. of the vessel's entire cargo (R. 226), and was stowed in No. 1 lower hold.

The vessel sailed from Messina on June 11, 1920, and arrived at Gibraltar, her next port, on June 16 (R. 276), where the master received a cable from petitioner's New York office reading as follows:

> **"Your coal requirements excessive cost of bunkers Gibraltar very high make accurate measurement remaining bunkers if not enough to make North Sydney take only enough to reach there cut down consumption in every way if fuel runs short reaching coast cut out one boiler." (R. 1090.)**

Gibraltar is the usual bunkering port for the western Mediterranean and the "Willdomino" loaded 400 tons of

bunker coal there (R. 276). She had 766 tons of coal on board (R. 1195) when she sailed from Gibraltar on June 17th for Lisbon, where she arrived June 19th. She remained at Lisbon, loading a considerable quantity of cork, which completed her cargo, until June 24th, when she sailed (R. 277).

On June 29th, four days after leaving Lisbon, a breakdown occurred in the vessel's turbines which both courts below found was not attributable to lack of care or diligence (R. 1375, 1433). This breakdown put the high pressure turbine out of commission. Temporary repairs were made at sea by the ship's engineers which enabled her, upon her low pressure turbine alone (R. 82), and at reduced speed and with increased coal consumption, to proceed to Ponta Delgada, Azores, for necessary repairs and supplies.

She arrived at Ponta Delgada on July 3d; was surveyed, made such repairs as were possible, there being no facilities at that port to repair the high pressure turbine (R. 283), obtained supplies, including 250 tons of bunker coal, and sailed from Ponta Delgada on July 10th, still using her low pressure turbine alone.

ERRATUM.

Page 7, line 23. Strike out as incorrect statements the six lines beginning "The vessel took a Great Circle Course etc." and ending "(R. 1044, 1239)," and substitute the following:

> "The first five days out of Lisbon were on a direct course to North Sydney. Engine trouble then took the vessel South to Ponta Delgada. Her course from there for the first six days was rather more southerly than a direct course to North Sydney. But this was a month dangerous for icebergs and safety may have seemed to the Master to require such a course. The actual course for these six days was neither directly to North Sydney nor to New York, but was about midway between. On the sixth day the course was changed from N. 74° W. to N. 51° W. and a Great Circle Course taken to North Sydney. (R. 1046, 1048). This course has been plotted on a Government chart from the Log entries (R. 1010-1028, 1034-1058), copies of which chart will be produced at the argument."

thick fog which continued through the night and at 6.30 A. M. of the 24th, she stranded at her bow (R. 287, 319), when she was about seven miles from Gannett Rock (R. 291). The master, who had been on the bridge all night, believed he was twenty miles off the shore, and a sounding taken at 4.30 A. M. had indicated this to be the fact (R. 287).

No. 1 hold at once filled with water to a depth of twenty-one feet on the starboard side and eighteen feet on the port side (R. 354, 1063), which covered the citrate of lime. The vessel was backed off into deep water and, after her trim had been improved by the use of the ballast tanks, she finally proceeded to Halifax, where she arrived at 2.12 A. M. on July 27th.

Upon arrival at Halifax the vessel was surveyed by the port warden and representatives of Lloyd's and the London Salvage Association. There being no drydock available (R. 538, 546, 570), all the surveyors recommended that the vessel proceed to New York under convoy, her trim having been corrected by placing additional ballast at her stern, with proper precautions to prevent the water from working aft from No. 1 hold, in which it was confined.

These recommendations were carried out. The vessel sailed from Halifax August 3d and arrived at New York without incident on August 7th (R. 298). She docked at Jersey City on August 9th, where lemons, which constituted the larger part of her cargo, were discharged. She completed discharging the lemons on August 19th and then proceeded to 134th Street, New York City, in order to unload her cork cargo, much of which was on top of the citrate of lime in No. 1 lower hold (R. 299).

After the discharge of the cork, she was drydocked at Hoboken, N. J., for a survey and to prepare specifications for repairs. She remained in drydock for twenty-six hours (R. 81). On August 28th she was again in drydock for eight hours, while the contractor who had been awarded the repair work, prepared patterns for her stem and plates (R. 82). She was then put into the water while these parts were

being fabricated. She was again put in drydock on September 21st, where she remained until October 2d, while the new parts were placed in position. On October 2d she left the drydock, her repairs having been completed. The citrate of lime was then discharged from No. 1 hold and tendered to the respondents, who refused to accept delivery and abandoned it to the petitioner (R. 1324-5). The petitioner sold it for about $3000 (R. 191).

The petitioner had no knowledge of the characteristics of citrate of lime (R. 114, 217). Respondents who were dealers in the commodity and fully acquainted with its characteristics, did not advise petitioner thereof; nor, after the stranding, did they at any time suggest to petitioner any measures that should be taken to protect it from any further damage (R. 114, 217).

Surveyors for respondents' underwriters on August 23d and also a day or so later opened and examined some of the casks on the top row which were then out of water and took samples (R. 197). On August 28th, when the vessel was in drydock, they took other samples (R. 251). These samples were submitted by them to chemists for analysis, who reported on September 2 (R. 903). On the basis of the chemist's report the surveyors advised the underwriters "that it appeared to be that the cargo was worthless" (R. 257). Respondent Pfizer informed the petitioner on September 2 that the goods were apparently a total loss (R. 891).

The respondent Pfizer notified its underwriter that the goods were a total loss (R. 198), and collected its insurance (R. 682). Apparently the respondent Citro Chemical Company did likewise (R. 257). The present actions are, we assume, prosecuted for the benefit of the underwriters.

Specifications of Error Intended to be Urged:

(1) The Circuit Court of Appeals erred in finding that the stage of the voyage beginning at Lisbon and the stage resumed at Ponta Delgada was to New York, and that the

vessel was unseaworthy by reason of sailing from those ports with insufficient bunkers to reach New York, whereas, on the contrary, the stage was from Lisbon to North Sydney (later from Ponta Delgada to North Sydney) and the ship when sailing from both ports had sufficient bunkers to reach North Sydney.

(2) The Circuit Court of Appeals erred in finding that stopping at North Sydney was a deviation.

(3) The Circuit Court of Appeals erred in finding that the vessel went to North Sydney for bunkers for a subsequent voyage, whereas the only direct evidence in the case was that she went there only for coal for the voyage to New York and the finding of the court was based on mere inferences and mathematical computations.

(4) The Circuit Court of Appeals erred in finding that the ship went to North Sydney for coal for a subsequent voyage, although that issue had not been raised in the pleadings or at the trial or in the opinion of the trial court.

(5) The Circuit Court of Appeals erred in finding that the ship went to North Sydney with an intent to load coal for a subsequent voyage and in holding that the fact that she did not take on coal there for a subsequent voyage was immaterial.

(6) The Circuit Court of Appeals erred in holding that it was unnecessary to show a causal connection between the alleged lack of due diligence to make the vessel seaworthy and the negligent navigation causing cargo damage in order to deprive the ship owner of the exemption from liability for the damage given by Section 3 of the Harter Act.*

(7) The Circuit Court of Appeals erred in holding that the petitioner failed to take reasonable care of the damaged merchandise after the stranding, in that it did not discharge it when the vessel was first drydocked for survey.

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*The text of the Harter Act is printed in the Appendix.

ARGUMENT.

Summary of Argument.

I. The voyage of the "WILLDOMINO" was by stages. The stage beginning at Lisbon was to North Sydney; it was not to New York, as found by the Circuit Court of Appeals. The vessel was ordered by her owner to go to North Sydney, and these orders were literally obeyed. A turbine breakdown interrupted the stage from Lisbon to North Sydney and caused the vessel to put into Ponta Delgada, Azores Islands. Her orders were not changed at Ponta Delgada and upon completion of repairs she resumed the stage of her voyage to North Sydney. She had sufficient bunker coal to reach North Sydney both upon sailing from Lisbon and from Ponta Delgada. She reached North Sydney with coal to spare. The Circuit Court of Appeals, therefore, erred in holding that she was unseaworthy upon sailing from Lisbon and from Ponta Delgada because of insufficiency of bunker coal to reach New York.

II. The "WILLDOMINO" did not deviate in going to North Sydney. The bills of lading gave her broad liberties to go to ports for bunkering, even though such ports were off the customary route. This justified her in going to North Sydney for sufficient bunkers to reach New York, which is all that she did. It also would have justified her in taking on bunkers to get away from New York, as well as to get there, if she had done so. The finding of the Circuit Court of Appeals that she went to North Sydney for bunkers for an ensuing voyage was erroneous. It was not raised in the pleadings or at the trial and was against the only *direct* evidence on the point. This finding was based entirely on inference and conjecture. It held that an unfulfilled intention to deviate is a deviation, which is contrary to the decisions of this court.

III. The respondents' cargo was damaged by sea-water as a result of the stranding of the "WILLDOMINO," which was caused by negligent navigation. The alleged unseaworthiness of the "WILLDOMINO" (and the owners' lack of due diligence to make her seaworthy in this respect) was in no sense causally connected with the stranding and the consequent damage to the cargo. Both courts below so found. Consequently, the Circuit Court of Appeals was in error in holding that the vessel and carrier were not exempted from liability by Section 3 of the Harter Act. This point has never been before this court for decision. There are, however, decisions in the Circuit Court of Appeals and District Court which hold that in order to deprive the ship and carrier of the exemption from liability for negligent navigation and management given by Section 3 of the Act, a causal connection must be shown between the unseaworthiness and the disaster causing the damage. These decisions are based on sound principles of law and statutory construction. Any other interpretation of Section 3 would lead to injustice and absurd conclusions.

IV. The petitioner took reasonable care of the damaged goods after stranding. The only respect in which the Circuit Court of Appeals held that it failed to take such care was in not unloading the damaged goods when the "WILLDOMINO" first went into drydock for preliminary survey for repairs. The goods had then been under water for a period of thirty-two days and both parties believed they were a total loss and that there was nothing of value to be saved. The petitioner was unfamiliar with the properties of the goods and respondents gave it no information or suggestions. On the contrary, respondents then informed petitioner that the goods were a total loss.

The entire record is before this court on writs of certiorari for its examination.

Lutcher & Moore Co. v. Knight, 217 U. S. 257, 267.

> "It is undoubted that by the operation of the writ of certiorari, . . . the entire record is before us with power to decide the case as it was presented to the Circuit Court of Appeals, by reason of the writ of error issued out of that court. Certain is it also that the Judiciary Act of 1891 contemplates that, as a general rule, where under its provisions a case comes to this court on certiorari . . . it will be disposed of so that the mandate of this court, to avoid circuity will go directly to the Circuit (district) Court."

To the same effect see *Delk v. St. Louis & S. F. R. R. Co.*, 220 U. S. 580; *The Conqueror*, 166 U. S. 110.

POINT I.

The "Willdomino" was seaworthy because she had sufficient bunker coal to reach North Sydney upon leaving Lisbon and upon leaving Ponta Delgada.

The only respect in which respondents contended that the "Willdomino" was unseaworthy was "in the matter of sufficiency of fuel" (R. 1430). The District Court held that the vessel was seaworthy (R. 1374). The Circuit Court of Appeals held that this was a voyage by stages, following *Thin v. Richards & Co.*, (1892) 2 Q. B. 141, 144; *The Vortigern*, (1899) P. 140, and that due diligence must be shown by the owners to supply the vessel with sufficient bunkers at the beginning of each stage of the voyage for the purposes of that stage (R. 1430).

The first stage was from Messina to Gibraltar and the second from Gibraltar to Lisbon. At the beginning of each of these stages the vessel had an adequate supply of bunkers for the stage (R. 1431).

At Gibraltar the captain received a cable from his owners reading as follows:

> "Your coal requirements excessive cost of bunkers Gibraltar very high make accurate measurement remaining bunkers if not enough to make North Sydney take only enough to reach there cut down consumption in every way if fuel runs short reaching coast cut out one boiler" (R. 1090).

This was a definite order to make the next stage of his voyage *Lisbon to North Sydney.**

Counsel for respondents in their brief in the Circuit Court of Appeals conceded this, and that this order was literally carried out.

New York is 2905 miles from Lisbon (Reed's Tables of Distances, p. 140); Sydney is only 2260 miles.

In these days of easy communication by cable and wireless, the owners, rather than the masters of tramp steamers that seek cargo at many ports, fix the stages of the voyage. There have been no reported cases where this point has been raised. However, in *The Vortigern,* (1899) P. 140, 147, the trial Court speaks of the master as fixing the next stage, while the Court of Appeal, at page 155 of the same report, speaks of the shipowner as determining the stages. In *Greenock SS. Co. v. Maritime Insurance Co., Ltd.,* 2 K. B. (1903) 657, 661, the Court says that the "*shipowner* taking advantage of this method of satisfying the implied warranty, must make up his mind to what port he intends to proceed; and he will only satisfy the warranty if he takes on board a sufficiency of coal for that contemplated voyage."

The stage of the voyage from Lisbon to North Sydney was definitively fixed by the petitioner's cabled orders to the master at Gibraltar, and was never changed.

The vessel had sufficient bunker coal for a voyage to North Sydney when she sailed from Lisbon. The distance

*Unless otherwise stated all italics herein are our's.

was 2260 miles and she had 651 tons of bunker coal. At the speed of seven and three-quarter miles per hour, which the Circuit Court of Appeals held she was entitled to expect to make (R. 1432), she would require 12.15 days for the stage, which with a daily coal consumption of forty-two tons would require 510 tons, leaving 141 tons, or approximately three days' surplus supply upon arrival at North Sydney. A breakdown of the high pressure turbine, which both courts below held was not attributable to negligence (R. 1375, 1433), caused the vessel to go to Ponta Delgada for repairs and supplies.

There was no change of orders at Ponta Delgada. The master proceeded on the stage he had been compelled to discontinue when the breakdown occurred, *i. e.*, to North Sydney. He followed a Great Circle Course which in prac-

ERRATUM.

Page 15, line 15. Strike out from the sentence beginning "He followed a Great Circle Course, etc." to the end of the paragraph and substitute the following:

> "For six days he followed a course which was neither directly to North Sydney nor to New York, but was about midway between, and then changed the course directly to North Sydney (R. 1046, 1048). See course plotted on a Government Chart from the Log entries which will be produced at the argument."

North Sydney.

In this argument they failed to give any consideration to the fact that log entries of distance traveled are computed from observations, dead reckoning and readings from the taffrail log (which works somewhat like a speedometer), in all of which there is the possibility of mechanical and human error. Counsel also made the extraordinary argument that this trifling and negligible difference in distance constituted of itself a deviation.

Such an argument requires no discussion here.

The vessel had 629 tons of bunker coal when she left Ponta Delgada (R. 1229). The distance to North Sydney from St. Michaels, Azores (the island of which Ponta Delgada is the chief port) is 1645 miles (Reed's Table of Distances, p. 142), and that from Ponta Delgada must be about the same. At seven and three-quarter miles per hour it would require 8.84 days for the stage which, with a daily coal consumption of forty-two tons, would require 371 tons, leaving 258 tons or approximately six days' surplus supply upon arrival at North Sydney. Actually the vessel required 12.125 days for the stage and arrived at North Sydney with sixty-one tons of coal in her bunkers, having averaged only five and three-quarter miles per hour on a daily coal consumption of 46.75 tons, because she was proceeding on her low pressure turbine alone.

The Circuit Court of Appeals (R. 1431-1434) in finding that the stage was from Lisbon and Ponta Delgada to New York, overlooked the outstanding fact that the "Willdomino" actually sailed from Lisbon and Ponta Delgada to North Sydney under express orders of her owners.

There is evidence that the captain had in his mind some hope of making New York; also the heading of the log books upon leaving Lisbon indicated that New York was the destination (a mere headline tag to designate this voyage). These facts are negligible in view of the express orders of the owners at Gibraltar to go to North Sydney, which orders were literally obeyed.

It also appeared that the vessel "cleared" at Lisbon and Ponta Delgada for New York, but a clearance only specifies the ports for which the vessel has cargo and not bunkering ports on the way, as we shall show hereafter.

Disregarding these incidental and unimportant facts, the main fact remains that the captain had orders from his owners to go to North Sydney and in obedience thereto he did sail to that port and arrived there in safety with a surplus of coal.

We call attention to the fact that the next stage was

from North Sydney to Halifax. There is no contention that the vessel had insufficient coal for this stage. It was upon this stage that the stranding occurred.

We submit that the Circuit Court of Appeals was in error in holding that the vessel was unseaworthy when she sailed from Lisbon and Ponta Delgada.

POINT II.

The voyage to North Sydney was not a deviation. The Circuit Court of Appeals erred in finding that it was a deviation.

(a) *The liberties of the bills of lading gave the "Willdomino" the right to go to North Sydney for sufficient bunkers to carry her to New York.*

The District Court found that the "WILLDOMINO" was not guilty of a deviation in putting into North Sydney (R. 1376-1380), holding that the bill of lading provisions were broad enough to justify it.

The Circuit Court of Appeals, while it did not expressly admit that the vessel was justified in going to North Sydney for sufficient bunkers to reach New York, yet, in effect, it did so because it passed by that question without deciding it and went on to find that the voyage to North Sydney was made with the intention of purchasing coal for a subsequent voyage which it held was a deviation. (R. 1437-9.)

The relevant provisions of the bill of lading (R. 916, 917) were as follows:

> "Shipped by, or received for shipment . . . to be transported by the good steamship WILLDOMINO . . . .to New York with liberty to call at INTERMEDIATE PORTS or any port or ports in or out of the customary route in any order, to receive and discharge coal, cargo, passengers and for any other purposes.
>
> "Eighth: The ship has liberty of filling up and or bunkering at any port or ports in or out of the way.

"Filling up only in ports on the way westwards of (*sic*) New York."

(Clause Eighth was printed in the Bill of Lading in heavy face type; and the last clause was in handwriting.)

The liberty of bunkering in the printed clause was not narrowed by the clause in handwriting. "Filling up" refers only to cargo and not to fuel for bunkers, as appears from clause *Eighth*, where "filling up" is distinguished from "bunkering." This was so held by both courts (R. 1379, 1432).

The District Court was amply sustained under the authorities, in holding that the "WILLDOMINO" had a right to go to North Sydney for bunkers. The parties had provided by their contract that she was to have such a right.

Where the bill of lading contains a clause providing that the vessel may call *"at any port or ports in or out of the customary route in any order,"* or other words of similar import, it is uniformly held that the ship is entitled to proceed to and stop at ports which are off the regular and customary route (if such changes are reasonable). Such a departure is not a deviation, because the parties have agreed that it shall not be. The following are the cases which bear the closest resemblance on the facts to the case at bar:

South Atlantic S. S. Line v. London Savannah Naval Stores Co., 255 Fed. 306 (C. C. A. 5).

In this case a freight contract which provided for the transportation of goods from Pensacola, Florida, to Bristol, England, upon the terms of a bill of lading incorporated therein by reference, was before the court for interpretation. The bill of lading gave the vessel liberty "to call at any port or ports in or out of the customary route." The Court held this provision entitled the owner to send the ship from Pensacola to Bristol via continental ports which were clearly off the route.

The Blandon, 287 Fed. 722, 725 (S. D., N. Y.).

Here cargo was loaded at New York for transportation to Valencia, Spain, under a bill of lading giving the vessel "liberty to call at any port or ports in or out of the customary route in any order." The vessel proceeded from New York to Philadelphia, thirty hours' sailing distance away, and obviously off the route to Valencia. At Philadelphia she loaded additional cargo. The Court held that this was not a deviation.

The Panola, 1925 A. M. C. 1173 (C. C. A. 2).*

In this case the vessel, after loading cargo at Philadelphia for Helsingfors, Finland, sailed to New York where she discharged cargo for New York that had been loaded in Europe. She also loaded New York cargo for Helsingfors, after which she returned to Philadelphia and loaded additional cargo for Helsingfors before sailing for that port. The bill of lading gave the vessel liberty to

> "remain in port, proceed by any route and deviate from or change the advertised and intended route at any stage of the voyages and may proceed to and stay at any places whatsoever, although in a contrary direction to or outside of, or beyond the usual route to the said port of discharge once or oftener, in any order, backwards or forwards . . ."

Suit was brought by the owner of the cargo first loaded at Philadelphia for Helsingfors, upon the ground that the vessel had deviated and was responsible for damage caused by the delay. The Court held that the vessel had not deviated.

Hadji Ali Akbar & Sons Ltd. v. Anglo Arabian & Persian S. S. Co., 11 Com. Cas. 219.

Here goods were shipped from a Persian port to London, England, under a bill of lading which gave the vessel liberty

*Not yet reported in Federal Reporter.

"to proceed to or call in any order for any purpose at any port or ports whatsoever, although in a contrary direction to or out of or beyond the ordinary route, all of which ports shall be deemed to be included within the intended voyage. . ." with further liberty to "transship or land and store . . . and thence reship. . ."

The vessel landed the goods at Cardiff and transhipped them by another vessel to London. It was held that this was not a deviation.

Attorney General v. Benjamin Smith & Co., 34 T. L. R. 566 (H. of L.).

Goods were shipped during the World War from Melbourne, Australia, to London, England, under a bill of lading providing that it was "via ports subject to Government requirements" with liberty to the vessel to proceed and stay at any ports or places "notwithstanding that such ports or places are out of or away from the customary and geographical route . . ." (The Bill of Lading provisions are given in the opinion of the Court of Appeal, 33 T. L. R. 342.) The vessel landed other cargo at Mudros and Imbros, Turkish Islands in the Aegean Sea near the Thracian Coast and stayed there some time, acting as a floating storehouse for the British authorities. The Court held that the liberties in the bill of lading justified the vessel in stopping and discharging cargo at these islands, although this "involved a detour far out of the ordinary course of a voyage between Melbourne and London," but that it did not justify the vessel in remaining there after the discharge of the cargo for governmental purposes.

To the same effect, see:

Citta di Messina, 169 Fed. 472 (S. D. N. Y.);
Austrian Union SS. Co. v. Calafiore, 194 Fed. 377 (C. C. A. 5);

Emelia S. de Perez, 287 Fed. 361, 1923 A. M. C. 42 (S. D. N. Y.); affirmed without opinion 288 Fed. 1019;

The Tokuyo Maru, 7 Fed. (2d) 889, 1925 A. M. C., 1420 (N. D. Cal.).

Cases in which a vessel has been held to have deviated are based upon different liberty clauses in the bills of lading and upon different circumstances. They are not relevant here.

The application of the rule to be deduced from the above cases to the facts of the case at bar unquestionably leads to the conclusion that the "WILLDOMINO" was justified in putting into North Sydney to obtain bunkers. The general liberty clause in the bills of lading entitled her to call not only at "Intermediate Ports" but also at *"any port or ports in or out of the customary route in any order."* As if not satisfied with this the parties in the eighth clause further specifically agreed that the ship was to have liberty of "filling up and or bunkering *at any port or ports in or out of the way."*

In a handwritten clause the parties allowed "filling up" (meaning of cargo) "only in ports on the way westward of *(sic)* New York." This restriction does not apply to bunkering and clearly shows an intention that the vessel for bunkering purposes was to be allowed to stop at ports not on the customary or direct route.

There is no testimony as to the difference in distance between a direct voyage from Lisbon to New York and one via North Sydney. One witness testified that he thought a direct voyage from Gibraltar to New York was 300-400 miles shorter than one via North Sydney (R. 860); another witness thought a direct voyage from Gibraltar to New York was 500 miles shorter than one via North Sydney (R. 811). From measurements on the maps and from published tables of distances it appears that the difference between a direct voyage

from Lisbon to New York and one via North Sydney is much less than the above testimony would lead one to believe. The distance from Lisbon to New York (Reed's Tables 140) is 2905 miles; from Lisbon to Sydney 2260 miles; from Azores Islands to New York 2290 miles; from Azores Islands to Sydney 1645 miles (R. 142). Reed's Tables do not give the distance from Sydney to New York, but measurements on the Government charts show it to be approximately 807 miles. Consequently, the distance from Lisbon to New York via Sydney (North Sydney is for all intents and purposes the same) is 3067 miles as compared with a direct distance of 2905 miles or a difference of 162 miles. The same difference in distance exists between a voyage from the Azores Islands to New York direct (2290 miles) and from the Azores Islands to New York via North Sydney (2452 miles). This departure from the route is considerably less than the departures which under similar clauses were held not to be deviations in *The Blandon* and *The Panola.*

The words of Learned Hand, *D. J.* (now *C. J.),* in *The Blandon,* 287 Fed. 725, in considering a similar clause are appropriate:

> "True, it was not a stop on the customary route; at least, I must assume so on this record. Yet it was expressly agreed that the port might be 'out of the customary route.' What more limited sense can those words mean than a stop at a place some thirty hours away?"

To hold that the "Willdomino" was not privileged to go to North Sydney for bunkers is to give no effect to the liberty clauses contained in the bills of lading and to write a different contract for the parties.

When a bill of lading has expressed the liberties of a ship in as plain terms as are used here, the rules for the interpretation of contracts hardly permit that they be set

aside and a different contract imposed upon the parties. If a vessel on a voyage from New York to Liverpool, with such liberties as we have here, should abuse her liberties to the extent of stopping at Rio Janeiro, there might be ground upon which a Court would hold that such a divergence from the customary route was out of all reason and could not have been within the contemplation of the parties. But except in a case of a quite unreasonable divergence from the customary route, we submit that the parties must be allowed to make their own contracts and that the Courts should interpret them in accordance with their plain language.

(b) *The liberties of the bills of lading gave the* "WILLDOMINO" *the right (had she desired so to do) to take sufficient bunkers at North Sydney to get away from New York, as well as to get there.*

The Circuit Court of Appeals held that the "WILLDOMINO" went to North Sydney with the intention of obtaining not only sufficient bunkers to take her to New York, but also sufficient to enable her to make her next voyage from New York, and that this was a deviation, citing, *Austrian Union S. S. Co. v. Calafiore,* 194 Fed. 377 (C. C. A. 5). That case is not in point. The ship at a port off the route loaded cargo for a subsequent voyage and not bunkers.

The reasons for holding that it is a deviation for a vessel to stop at a port off the route on a voyage and take on cargo for a subsequent voyage do not apply to taking on bunkers there for a subsequent voyage.

In a recent English case on deviation, *U. S. Shipping Board v. Bunge & Born, Ltd.,* 41 T. L. R. 73, the Court of Appeal touched upon this point. The vessel (a fuel oil burner) had been chartered to carry maize from Buenos Aires to Malaga and Seville with a limited liberty clause which the Court held allowed her to call at ports on the usual route between these ports. After discharging her

Malaga cargo she had sufficient fuel oil to make Seville and discharge, but not enough to get away from Seville. It appeared that it was difficult to get fuel oil in Seville. She therefore stopped at Gibraltar, which was on the route to Seville, hoping to get fuel oil from an oil tanker there, but the tanker had not arrived, and after two days' waiting, she went to Lisbon, 300 miles off her course, and procured the oil. It was *held* that she was entitled to stop at Gibraltar for fuel oil, but that she should have waited for it there and that going to Lisbon was, therefore, a deviation.

Bankes, *L. J.*, said: "The master was, in my opinion, within his rights in calling at Gibraltar for fuel oil, as I consider that the liberty to call for bunkers must include the right to call for sufficient fuel to enable the vessel to get away from Seville as well as to get there."

Atkins, *L. J.*, was of the opinion that this question was not before the Court for decision.

Unless this rule stated by Bankes, *L. J., supra,* is correct, it is difficult to see how modern ocean commerce can be carried on. In the usual voyage of a vessel (especially a tramp) calling at several ports for loading and discharging, there is no clear point of demarcation where one can say that one voyage ends and another begins. Must she wait until she has discharged her entire inbound cargo before taking fuel or cargo for her outward voyage? Suppose she has loaded cargo in Hamburg for New York, Boston and Philadelphia, a common service today. She arrives in Philadelphia from Hamburg and discharges her inward cargo and at the same time loads outward cargo for Hamburg and bunker coal for her next round trip; she then goes to New York, where she discharges her inward cargo and loads cargo for Hamburg; she then sails to Boston, where she discharges her inward cargo from Hamburg and loads outward cargo, after which she sails for Hamburg. This is a common practice with many ships making regular calls at Atlantic ports. In such circumstances, would the loading at Philadelphia of cargo for Hamburg

and bunker coal for her round trip be a deviation as to the inward cargo from Hamburg for New York and Boston still aboard the vessel? And would the loading at New York of outward cargo for Hamburg be a deviation as to the inward cargo to be discharged at Boston and still remaining in the ship? If this doctrine of the Circuit Court of Appeals be correct, then this common maritime practice we have outlined is a deviation, no matter how broad may be the liberty clauses in the bills of lading, for as to inward Boston cargo the voyage did not end until such cargo was discharged at Boston, and the loading of outward cargo and bunkers at Philadelphia and New York would be for another voyage.

The rule of the Circuit Court of Appeals on this point in the present case is, we submit, entirely technical and based upon faulty reasoning and disregard of common sea practices. If approved it will embarrass commerce, add to the burden upon shipping and lead to the increase of ocean freight rates. Is it wise for courts to interfere with such common business practices?

(c) *The finding of the Circuit Court of Appeals that the "Willdomino" put into North Sydney for bunkers for a subsequent voyage was not raised before the Trial Court and was contrary to the only direct evidence on the point.*

Neither of the libels averred deviation (R. 3-5; 25-27). Libellants' answers to claimant's interrogatories did not specify deviation as a fault (R. 15, 16, 38, 39).

At the oral argument following the close of the testimony, counsel for the libellants submitted twenty-seven "Points of Negligence" upon which he relied and which he argued that he had sustained. They are set forth in the opinion of the trial court (R. 1369-1373). None of them suggested that the vessel went to North Sydney for bunkers for a voyage to be begun after the cargo had been

discharged in New York. That point was neither raised nor argued in the trial court. It was an afterthought. No evidence was taken upon it on either side, except that petitioner's president was asked on cross-examination if the vessel had not gone to North Sydney for bunkers for a subsequent voyage. He answered that she had not (R. 862).

The point was first raised in respondents' Petitions of Appeal (R. 1395, Sections 19 and 20; 1407, Sections 18 and 19). It was therefore not properly before the Circuit Court of Appeals for decision. *Badger v. Ranlett*, 106 U. S. 255, 259; *The Minnie*, 225 Fed. 36; *Jova Brick Works, Inc. v. City of New York*, 277 Fed. 180; *The Lydia*, 1 Fed. (2d) 18, 23.

Petitioner filed a petition in the Circuit Court of Appeals for a rehearing, calling attention to the above facts and asked leave to file an affidavit or to take the testimony of Mr. Hensley, the Halifax agent of the vessel, "to prove that he was directed by the owner in advance of the arrival of the ship at Sydney to order only bunkers for the voyage to New York, and that these orders remained unchanged. Further, that while he made every effort to procure at Sydney enough bunkers for New York, he was able (by reason of a coal strike at Sydney) to procure only enough coal (sixty-two and one-half tons) for Halifax" (R. 1453). Mr. Hensley's testimony on depositions on other points had been produced at the trial; but he was not examined by either side on this point because it had not been raised.

The Circuit Court of Appeals denied the motion to take the testimony, saying:

> "Should such testimony be received and given its greatest effect it would fail to negative that it was the purpose of the owner, or the master in obedience to the cablegram received by him at Gibraltar, to order additional bunkers after the vessel arrived at Sydney. It would not in our opinion be adequate to overcome the evidence in the cause that such was the primary purpose for which the vessel put in at Sydney. Con-

sequently, we think that neither affidavit nor testimony of Mr. Hensley, if taken, would serve any useful purpose" (R. 1459).

From the above quotation from the opinion of the Circuit Court of Appeals it might be inferred that there was direct evidence in the case showing that the primary purpose of the vessel in putting into North Sydney was to obtain bunkers for a subsequent voyage. There was no such direct evidence. This finding was on circumstantial evidence and upon inferences unsupported by any direct evidence. The opinion states: "*It is true that there is no direct evidence* that it was the purpose to obtain at Sydney coal for a subsequent voyage, but such fact may be established by circumstantial evidence as well as by direct evidence" (R. 1439).

The only direct evidence in the record entirely contradicts the finding that the vessel went to North Sydney for subsequent bunkers. Respondents' counsel on cross-examination of George T. Williams, petitioner's president, asked a few questions regarding the purpose for which the "WILLDOMINO" went to North Sydney, and his answers thereto constitute the sole direct evidence on this issue. This testimony is so directly in conflict with this finding of the Circuit Court of Appeals that we set it forth in full:

Cross-examination (R. 71):

"Q. But did you give your master standing orders to coal at Sydney?

A. I don't know as he had standing orders. We have made it a sort of practice to coal at North Sydney; as I recall it, along about that period we were having great difficulty in getting ship's bunkers on the Atlantic Coast of the United States, as you know in those days there were many embargoes on coal, and so on.

Q. Well, did the master of the 'WILLDOMINO' have orders to coal this vessel at Sydney?

A. You mean on this particular voyage?

Q. Yes.

A. I don't know; he might have had; you mean at the time of leaving Lisbon?

THE COURT: If you don't know, why just say so.

Q. Why were you hesitating about that answer?

A. Well, I am hesitating as to whether it was when he was at Lisbon or at Ponta Delgada.

Q. When he was at Ponta Delgada, did he have orders to coal at Sydney?

A. I think he naturally would have had orders to coal at the nearest coaling port, which would have been North Sydney."

Recalled; cross-examination (R. 234):

"Q. How big were the bunkers of the 'WILLDOMINO,' and how much coal would she take?

A. Permanent bunkers about 650 tons and reserve bunker in her bridge deck about 802 tons.

Q. So she could carry about 1400 tons of coal?

A. 1450.

Q. Did you anticipate that when the vessel sailed from Ponta Delgada that she would go to Sydney and there take on approximately 1400 tons of coal?

A. No. We may have given him orders to proceed to the nearest coal port, which would have been North Sydney from Ponta Delgada.

Q. If he could have gotten it there, was it the duty of the master when he got to Sydney to fill up his bunkers with coal there?

MR. SPRAGUE: I object to that question as to what the duty of the master was.

THE COURT: I will permit it.

A. It might be considered his duty, but since we were able to get in touch with North Sydney we would have given the instructions."

Recalled; cross-examination (R. 862):

"Q. When you sent this cable to your master directing him to go to Sydney, didn't you intend that he should at North Sydney take on bunkers for the return trip to Europe?

A. No, sir. We hadn't any voyage fixed.

Q. Well, for the next trip that this vessel should make to sea?

A. No, sir.

Q. You didn't intend that he should take on enough coal to go to sea again?

A. No, sir, hadn't any next voyage in mind.

Q. Did you intend that he should take on enough coal at North Sydney to coal some other ship of yours from an Atlantic port to sail?

A. No, sir.

Q. Now, that is exactly what the 'WILLDOMINO' had done on the preceding trip, wasn't it?

A. After we arrived at North Sydney, we did that, yes.

Q. On the preceding trip of the 'WILLDOMINO' you had her coal in North Sydney?

A. Yes, sir.

Q. For her requirements to get to New York and then sail again?

A. No, to transfer coal to some other British steamers.

Q. That you owned?

A. That we owned.

Q. Now, then on that other trip that the 'WILLDOMINO' stopped at North Sydney, she was coming from the Baltic Sea, wasn't she?

A. No, sir.

Q. Where was she coming from?

A. St. Nazaire, France.

Q. That is considerably further north than Lisbon, isn't it, that port?

A. Yes.

Q. St. Nazaire was the last place that this vessel stopped in Europe on the preceding trip?

A. It is where she discharged her cargo and sailed for North Sydney under ballast.

Q. Then she wasn't in danger to any other cargo on that preceding trip when she stopped at Sydney for coal, was she?

A. No, sir.

Q. No other cargo to be injured?

A. No cargo aboard of her.

Q. Is that the only other time the 'WILLDOMINO'

stopped at North Sydney while under your management and before this accident?

A. I think so."

The above testimony was given orally before the trial judge. Under the practice, his finding of a fact from oral testimony taken before him is of persuasive weight and ought, we submit, to be accepted by this Court.

There was no doubt in his mind as to the truthfulness and force of this testimony, for he held that the vessel was justified in putting into North Sydney and that this was not a deviation.

(d) *The finding of the Circuit Court of Appeals that the "Willdomino" went to North Sydney for bunkers for a subsequent voyage is contrary to the rules regarding the effect to be given to circumstantial evidence.*

The Circuit Court of Appeals based its finding on this point upon the cable of the owners to the master of the "WILLDOMINO" at Gibraltar; the failure of the officers to take on board at Gibraltar, Lisbon and Ponta Delgada, sufficient fuel for the voyage to New York; the clearance of the vessel at Lisbon and Ponta Delgada for New York; and the headings on the pages of the log books at Lisbon and of the engineer's log book at Ponta Delgada that the vessel was proceeding "towards" or "to" New York (R. 1439).

The cable received by the master from the owners at Gibraltar reads as follows (R. 1090):

> "Your coal requirements excessive cost of bunkers Gibraltar very high make accurate measurement remaining bunkers if not enough to make North Sydney take only enough to reach there cut down consumption in every way if fuel runs short reaching coast cut out one boiler."

The fact of this cable and the officers' failure at Gibraltar, Lisbon and Ponta Delgada to take sufficient coal for New York "permit no inference" said the Circuit Court of Appeals "other than that it was the intention of the claimant and of the master to have the vessel put in at Sydney. That it was their purpose to conceal this intent and to put into Sydney as a port of refuge (though under a necessity created by themselves) is shown by the vessel's clearing at Lisbon for New York, the statements of the log books that she was proceeding on a voyage to New York . . . " (R. 1439). The opinion then continued: " . . . it is unreasonable to ask one to believe that the purpose of this plan and of the stop at Sydney was merely to obtain a proper amount of coal to complete the voyage to New York, . . . "

This conclusion was reached by the Court from mathematical calculations taken from respondents' brief to this effect: If the ship had procured high-priced coal at Gibraltar or Ponta Delgada for a voyage to North Sydney and had gone to North Sydney where she could buy low-priced coal for New York, it would have cost $3600 more (counting in loss of time of vessel etc.) than to buy high-priced coal at Gibraltar or Ponta Delgada and go direct to New York.

But by buying at North Sydney all the low-priced coal she could load in her bunkers including coal for a subsequent voyage, the saving would have been $8200.

The court, upon these calculations, found that the captain had yielded to this seductive opportunity for profit and formed a concealed intent to go to North Sydney and fill up his bunkers there for a subsequent voyage.

The reasoning of the Circuit Court of Appeals (R. 1439), appears to us to be specious and we repeat that the only *direct* evidence in the case on that issue was that of the owner (quoted above) in which he denied that his purpose in sending the ship to North Sydney was to obtain bunker coal for a subsequent voyage. In fact, the ship bought no coal at North Sydney for a subsequent voyage. It is diffi-

cult to see how the court, upon the evidence, could have found that the ship went there for subsequent bunkers and therefore was guilty of a deviation which displaced the bill of lading.

The fallacy of this reasoning is that it piles inference on inference and the conclusion arrived at is no more than conjecture.

In *U. S. v. Ross*, 92 U. S. 281, 282, 283, a judgment of the Court of Claims for the plaintiff under the Captured Property Act was reversed, the opinion saying:

> "No connection between the cotton captured and the fund now held by the United States has been established. Certain facts have been found, and from them it was inferred, as a matter of law, that other facts existed; and upon the facts thus inferred the court gave judgment. We think that in this there was error. . . . These seem to us to be nothing more than conjectures. They are not legitimate inferences, even to establish a fact; much less are they presumptions of law. They are inferences from inferences; presumptions resting on the basis of another presumption. Such a mode of arriving at a conclusion of fact is generally, if not universally, inadmissible. No inference of fact or of law is reliable drawn from premises which are uncertain. Whenever circumstantial evidence is relied upon to prove a fact the circumstances must be proved and not themselves presumed."

The burden of proving deviation was on the respondents. As was said in *U. S. Fidelity & Guaranty Co. v. Des Moines National Bank*, 145 Fed. 273, 279:

> "Which theory was correct was left to mere conjecture. The bank had the burden of proof, and as it failed to produce any evidence reasonably tending to establish the latter theory to the exclusion of the

other, the guaranty company was entitled to a directed verdict in its favor. . . . As was well said by the Supreme Court of Iowa in *Asbach v. Chicago, etc. Ry. Co.*, 'A theory cannot be said to be established by circumstantial evidence, even in a civil action, unless the facts relied upon are of such a nature, and are so related to each other, that it is the only conclusion that can fairly or reasonably be drawn from them. It is not sufficient that they be consistent merely with that theory, for that may be true and yet they may have no tendency to prove the theory.' "

In *Midland Valley R. Co. v. Fulgham*, 181 Fed. 91, 95, the Circuit Court of Appeals for the Eighth Circuit said in a much quoted opinion: "Conjecture is an unsound and unjust foundation for a verdict. Juries may not legally guess the money or property of one litigant to another."

All that the owner and the master did was entirely consistent with sincerity. If so, doubt should not be thrown on their actions nor a circuitous and dishonest course of conduct attributed to them unless actual facts so require. There is no evidence in this Record to justify the Circuit Court of Appeals in accusing them of acts of dishonesty which, if committed, would have been a fraud on the cargo owners (R. 1439).

Contrary inferences might as easily (and more fairly) have been drawn *which would have coincided with the only direct evidence in the case* and with the presumption of honesty.

The reason why sufficient coal for New York was not taken on at Gibraltar, Lisbon or Ponta Delgada was because the vessel's stage of her voyage (under her liberties) was from Lisbon and from Ponta Delgada to North Sydney, for which stage she had ample coal.

The fact that the entries at the tops of the pages of the logs made upon leaving Lisbon state that the vessel was

proceeding "to" or "towards" New York (R. 1010, 1203), may have been due either to carelessness on the part of the officers and engineers who made these entries, or to the fact that New York was the ultimate destination to which all the cargo was being transported. It is not evidence.

The deck log (the only important log in this connection) on the day the ship left Ponta Delgada shows "From Ponta Delgada to Sydney" (R. 1034) and so till she arrived there.

It may well be doubted whether the serious issues in this cause can be decided by the variant headings at the top of the log books in the teeth of the direct cable order of the owners to proceed to North Sydney.

The fact that the vessel at Lisbon and Ponta Delgada "cleared" for New York cannot be taken to prove an intention of the master to conceal the fact that he expected to stop at North Sydney for bunker coal. No such inference should be drawn therefrom. All her cargo was destined to New York and that was the port to which she would properly be cleared. Clearance is a practice connected with the customs authorities, who are concerned only in the vessel's having satisfied the requirements as to customs duties, harbor dues and the like.

> "In the absence of statute, clearance is but the gracious permission of the sovereign to depart from a port into which, without like permission implied from an 'entry' there was no right to come." *International Mercantile Marine Co. v. Stranahan,* 155 Fed. 428, 432.

There is no proof in the record of any statutory requirements of Portugal as to clearance. In the United States, clearance is regulated by statute. (1 Stat. 698, 699, and 3 Stat. 542; R. S. Par. 4197-4201; Comp. Stat. 7789-7793), which refer entirely to the manifesting of the cargo, the payment of duties thereon, and the ports to which such cargo is consigned. This shows that the purpose of clearance requirements is to prevent breaches of neutrality and

violation of the customs. In discussing these sections of the statutes, the Circuit Court of Appeals for the Second Circuit in *Hamburg American Steam Packet Co. v. U. S.*, 250 Fed. 747, 761, said:

> "It appears also that the master and shippers must state 'the foreign port or country in which *such cargo is truly intended to be landed*' while the clearance simply states that the vessel is 'bound for . . .' which is to be understood as the 'port or place' named in the master's oath, or, the 'foreign port or country *in which such cargo is truly intended to be landed.*' "

If the clearance practice in Portugal is similar to that of the United States, then the clearance of the "Willdomino" for New York was perfectly in order even though the master at the time intended to put into North Sydney for bunkers. The cargo was all destined for New York. The vessel would not be required to enter or clear at the custom house at North Sydney if she merely took bunker coal there. There was no necessity for her clearing at Lisbon and Ponta Delgada for that port. Clearance for New York showed no intent to conceal a purpose to bunker at North Sydney for a subsequent voyage.

Here again we submit that the Circuit Court of Appeals was merely drawing inferences from insufficient facts.

(e) *Admitting for the purpose of the argument only that the "Willdomino" sailed from Lisbon and Ponta Delgada with the intention of putting into North Sydney to procure bunkers for a subsequent voyage, nevertheless that was not a deviation, the intention never having been executed.*

The Circuit Court of Appeals, while admitting that the "Willdomino" did not in fact take bunker coal at North Sydney for a subsequent voyage, held that this was immaterial as it was the petitioner's *intention* to take such bunkers there and that the intention governed. In this there

was error. We submit that in so holding, it has confused the doctrine of deviation with that of abandonment of an intended voyage. In marine insurance, where the *terminus ad quem* has been definitely given up and another port of discharge selected, the underwriter is relieved from liability from the moment the purpose of abandoning the *terminus ad quem* is formed (*Arnould Marine Insurance*, (10th ed.) Sec. 380, p. 530). But if "the *terminus ad quem* specified in the policy remains the ultimate place of intended destination" the putting into another port not allowed by the policy before going to the ultimate place of destination is not an abandonment but a deviation (*ib.*, Sec. 382, p. 532) in which event the "mere intention to deviate, never executed, is not sufficient" to relieve the underwriter (*ib.*, Sec. 378, 527; Sec. 381, p. 531). The distinction between the two terms is defined by Chancellor Kent in *New York Firemen Ins. Co. v. Lawrence*, 14 Johns. Rep. 46, 57;

> "Deviation is not a change of the voyage, but of the proper and usual course in performing it. The voyage insured is never lost sight of in cases of deviation, actual or intended . . . But if the original place of destination be abandoned, in order to go to another port of discharge, the voyage itself becomes changed, because one of the termini of the original voyage is changed. The identity of the voyage is gone, and a new and distinct voyage is substituted."

The case at bar is in no sense one of abandonment. New York was always the actual port of ultimate destination. Stopping at North Sydney without a proper liberty clause in the bill of lading would have been a deviation, and not an abandonment. Even if there had been an intention to stop at North Sydney (without the right to do so) for subsequent bunkers (which we do not admit), yet, if the intention was not carried out, there was no deviation. Whether or not there was a deviation must be decided by what was actually done and is not a question of intention. There are numerous authorities to this effect. We cite only:

Marine Ins. Co. v. Tucker, 3 Cranch 357, 393; *Coffin v. Newburyport Marine Ins. Co.,* 9 Mass. 436, 447, where it is said:

"A deviation is a voluntary departure, without necessity or reasonable cause, from the regular and usual course of the voyage insured. This discharges the underwriters *from the time of the deviation. . . . But an intention to deviate, however deliberately formed, is not a deviation.*" (The italics are in the Report.)

Where a vessel enters a port for a lawful purpose, and while there also accomplishes another purpose which would have constituted a deviation had she entered for that purpose alone, there is no deviation provided the unlawful occupation does not detain her for a period longer than she is entitled to remain in order to fulfill her lawful purpose, since the risk is not thereby varied.

Hughes v. Union Ins. Co., 3 Wheat. 159, 163.

Here a policy of marine insurance gave liberty to touch at Matanzas to find out if there were "any men of war off the Havana." The voyage was from Teneriffe to the Havana to Baltimore. The vessel put into Matanzas to avoid enemy cruisers and while necessarily delayed there unloaded certain cargo. As soon as the passage was clear she sailed for the Havana and on the return voyage to Baltimore was lost. The underwriters claimed that the discharge at Matanzas constituted a deviation. Chief Justice Marshall, delivered the opinion of the Court holding that there was no deviation. He said:

"And why is it a deviation? It produced no delay, no increase of risk, and did not alter the voyage. The vessel pursued precisely the course marked out for her in the policy."

We submit that the Circuit Court of Appeals erred in finding a deviation.

POINT III.

Admitting for the purpose of the argument (but not otherwise) that the ship was unseaworthy upon sailing from Lisbon and from Ponta Delgada because of an insufficient coal supply, and that the stranding was the result of faults or errors in navigation, yet, since there was no causal relation between such unseaworthiness and the stranding which caused the damage to respondent's cargo, neither the ship nor the shipowner was by such unseaworthiness deprived of the protection of the Harter Act.

Let it be admitted for the purpose of this argument but not otherwise, that the "WILLDOMINO" was unseaworthy upon sailing from Lisbon and from Ponta Delgada because of insufficient coal, and that her owners did not exercise due diligence to make her seaworthy and properly manned, equipped and supplied in that respect. We shall proceed to show that on the proper interpretation of the Harter Act, upon principle and upon authorities, a causal relation must be shown between the unseaworthiness and the disaster which caused the damage to cargo, and that in the absence of such showing, the shipowner is still entitled to the protection of the Harter Act, Section 3.

This exact question has not been decided by this Court.

It was not really discussed by the Circuit Court of Appeals in its opinion. It merely cited these cases (R. 1429; 300 Fed. 10); *The Wildcroft*, 201 U. S. 378; *The Southwark*, 191 U. S. 1, and *International Navigation Co. v. Farr & Bailey Manfg. Co.*, 181 U. S. 218, 226, and added:

> "It follows, we think, that if the carrier fails to meet that burden he is liable for damage to the cargo resulting from negligence of the master and crew in the navigation or management of the vessel, and the carrier is so liable wholly without regard to whether or not there was any causal connection between the

lack of due diligence to make the ship seaworthy in all respects and the loss caused by the negligence in navigation or in the management of the vessel."

No one of the three cases cited by the Circuit Court of Appeals sustains a finding that a causal connection need not be shown. In no one of them could the question have even arisen. Thus:

International Navigation Co. v. Farr & Bailey Mfg. Co., 181 U. S. 218.

Here the damage to the cargo was caused by an open port. It was held in all three of the courts that the port had been left open at sailing, or else was either not fastened at sailing, or unsecurely fastened, and that the vessel was, therefore, unseaworthy at sailing.

The unseaworthiness was the direct cause of the damage and no question of a causal relation could have been raised on the facts.

The Southwark, 191 U. S. 1.

This case is to the same effect. The libellant's shipment of dressed beef was injured because the ship's refrigerating apparatus was out of repair at the time of sailing. Both the District Court and the Circuit Court of Appeals exonerated the vessel from fault. This court reversed the decrees below and directed a decree in favor of the libellant. The unseaworthiness was the direct cause of the damage.

The case is not relevant to the case at bar.

The Wildcroft, 201 U. S. 378.

This was a cargo of sugar which was damaged after the ship arrived at the dock in Philadelphia, and while the cargo was being discharged. This Court found that the ship was seaworthy at the beginning of the voyage and exonerated her. This case appears not to be relevant.

That a causal relation between the unseaworthiness and the disaster must be shown was decided in

The Turret Crown, 282 Fed. 354, 359, 360.

In this case, which came up in the District Court for the Southern District of New York, Ward, *C. J.*, found that the vessel when she sailed was unseaworthy in respect of her steering gear and that the owners had knowledge of it, but he also found that this had not contributed to the bottom damage which had caused the injury to the cargo and that therefore there was no causal relation between the unseaworthiness and the damage to the cargo. The libel of the cargo owners was dismissed. In his opinion, he said:

> "But the question is whether this unseaworthiness, whose defects were fully developed before water got into the fuel tanks, *contributed to the bottom damage which injured the cargo.* Of course, after the fuel oil gave out, the steering gear, even if perfect, would have been of no possible consequence. The deck log continuously describes the behavior of the steamer in the sea down to the time when she turned back as 'rolling heavily.' Rolling does not imply the pitching which causes bottom damage. Even if the vessel fell off so far as to be in the trough of the sea, there would be no pounding. It seems to me that the breaking down of the steering gear, instead of increasing, decreased the strain upon the vessel (p. 359).
>
> . . . . . .
>
> "If forcing the steamer into the sea, whether a head sea or a following sea, at a speed sufficient to give steerageway, did contribute to the bottom damage, it was an error in navigation and management of the vessel, for which the claimant is excused by the Harter Act" (p. 360).

The Circuit Court of Appeals for the Second Circuit in *The Turret Crown* (297 Fed. 766; 1924 A. M. C. 253), reversed the District Court *on the facts,* finding that the

damages to the double bottom tanks of the vessel in which its fuel oil was stored and which caused its return to port were caused by the added strain resulting from its defective steering gear and that this defect had existed at the commencement of the voyage and had made the vessel unseaworthy at sailing. It was, therefore, unnecessary for the Court to pass upon the question of a causal connection. It found it as a fact.

We quote from the opinion at pages 773 of the *Federal Reporter* and 261 of the *Amer. Mar. Cas.*:

> "We are satisfied that the defects in the steering gear added to the strains on the vessel as qualified experts declared. The proximate cause of the distress of the ship which ultimately required her to return to port was the defective condition of the steering gear. The failure of the steering gear and inability to control the vessel produced a wrenching and straining and pounding of the vessel which in turn resulted in damage to the tanks. It was an unseaworthy condition of the vessel."

And at pages 774 of the *Federal Reporter* and 263 of *Amer. Mar. Cas.*:

> "The defects in the steering gear were fully developed before there was any trouble with the vessel's fuel tanks. The trouble with the fuel tanks arose some twenty-four hours after the steering gear had developed serious defects and prevented the vessel from being properly steered and required her to stop. . . .
>
> "In the view we take of the evidence, the conclusion is iresistible that the damage to the double bottom tanks of the ship *was due to the added strains to which they were subjected by reason* of the defective steering gear. In this view of the case, the appellee is liable."

It will be observed that the statement of the law as to causal connection as laid down by Ward, *C. J.*, was in no sense overruled by the Circuit Court of Appeals.

The Turret Crown, 284 Fed. 439, 444.

The libel here was filed by another cargo owner in respect of the same voyage of *The Turret Crown* as in the case last cited. It came before the Circuit Court of Appeals for the Fourth Circuit, which affirmed a decree entered by Waddill, *J.*, in the District Court, dismissing the libel. In the opinion of the Court it was said:

> "Judge Ward, in the opinion filed by him in the New York case, a copy of which was submitted to us by both parties at the argument, held that the difficulties of navigation which the vessel encountered were due to a breakdown in her steering gear, and that this, in turn, was due to defective bolting of the steering engine, causing it to work loose on its foundation. He further found that these defects were discovered and pointed out in a survey held prior to the commencement of the voyage, and that the owners were negligent in failing to correct them. He likewise found, however, that the cause of the cargo damage was the water taken into the fuel tank through the bottom, and that this was not caused by the unseaworthiness of the vessel. If we accept, as we are disposed to do, his finding of the facts in this regard, it would seem to follow, of course, that, *there being no causal relation* between the unseaworthiness and the damage, no advantage may properly be taken of the former."

The application of the rule of causal relation to the common law doctrine of implied warranty of seaworthiness which prevailed in England and in the United States, was first made in the English courts in *The Europa* [1908] P. 84, in which the decision was based upon long established legal principles equally recognized in this country, and in the light of which the Harter Act should be interpreted.

That case was heard by Bucknill and Bargrave Deane, *J. J.*, in the Divisional Court of the Admiralty Division.

The lower Court had sustained the libel against the shipowner for damage to the cargo. In the Divisional Court, the appeal was allowed.

Bucknill, J.:

"The question raised on this appeal is a very important one, and we think the exact point has not yet been decided.

"It is whether a shipowner, whose ship was unseaworthy at the commencement of the chartered voyage, is liable in damages to the charterer, the owner of the cargo on board, not only for injury to his cargo, caused directly as the result of that unseaworthiness, but also for injury caused to other portions of the cargo, *not as the result of such unseaworthiness,* but by a peril of the sea excepted in the bill of lading; in other words, whether seaworthiness is a condition precedent in a charter of affreightment, to the extent that if the ship be unseaworthy the shipowner is reduced to the position of a common carrier and liable for all damage occasioned to the cargo, even if such damage be solely caused by an excepted peril and not by the unseaworthiness.

. . . . . .

"In our opinion there must be a time when the charterer or cargo-owner has no longer a right to treat the promise or warranty of the shipowner as a condition precedent, but must rely on his breach of warranty, and must then prove that the damage sued for has been caused by the unseaworthiness of the ship at the material time.

"In *Boone v. Eyre* (1777) 1 H. Bl. 273, note, Lord Mansfield said: 'Where mutual covenants go to the whole of the consideration on both sides, they are mutual conditions, the one precedent to the other. But where they go only to a part, where a breach may be paid for in damages, there the defendant has a remedy on his covenant, and shall not plead it as a condition precedent.' That was an action by the plaintiff, who had covenanted to convey to the defendant the equity of redemption of a plantation in the West Indies, together with the stock of negroes upon it, in consideration of £500 and an annuity of £160 for his life. The plaintiff covenanted that he had a good title to the plan-

tation and was lawfully possessed of the negroes, and that the defendant should quietly enjoy. The defendant covenanted that the plaintiff well and truly performing all and everything therein contained on his part to be performed, he, the defendant, would pay the annuity. Plea, that the plaintiff was not, at the time of making the deed, legally possessed of the negroes on the plantation, and so had not a good title to convey. Demurrer. Lord Mansfield, after laying down the law as above, added: 'If this plea were to be allowed, any one negro not being the property of the plaintiff would bar the action.' Judgment for plaintiff on the demurrer."

Bucknill, *J.*, also cited *Havelock v. Geddes* (1809) 10 East 555, 563, as follows:

"Lord Ellenborough, in giving judgment said: 'And to be sure, if this were a condition precedent the neglect of putting in a single nail for a single moment after the ship ought to have been made tight, staunch, etc., would be a breach of the condition, and a defense to the whole of plaintiff's demand.' "

The opinion proceeds:

"In *Steel v. State Line Steamship Co.*, 3 App. Cas. 72, 88, Lord Blackburn said: 'So here I think that if this failure to make the ship fit for the voyage, if she really was unfit, did exist, then *the loss produced immediately by that,* though itself a peril of the seas, which would have been excepted, is nevertheless a thing for which the shipowner is liable, unless by the terms of his contract he has provided against it.' The GLENFRUIN, 10 P. D. 103, 108, was cited during the arguments before us. There the defendants, the owners of cargo, were sought to be made liable for salvage services rendered to the GLENFRUIN, on which the defendants' cargo was being carried, the owners of the salving ship being also the owners of the salved ship. The salvage services were rendered because the GLENFRUIN's shaft broke during the voyage. The defence was that the GLENFRUIN was unseaworthy at the time

when she began her voyage, and that the bill of lading given for the defendants' cargo, which excepted accidents from machinery—her shaft broke at sea in fine weather—was, therefore, not binding on them, and that the plaintiffs, as owners of the salving and salved ships, were liable to the defendants for all damages and losses occasioned by the unseaworthiness of their ship, the GLENFRUIN, of which losses salvage was one. Butt, *J.*, said: 'I am of opinion that the exceptions in the bill of lading have not the effect either of limiting the implied warranty or of otherwise exempting the shipowner from liability to the owners of cargo for damage or loss occasioned by the breaking of the shaft,' and a little lower down on the same page he said that the exception in the bill of lading had no application to the case of a ship which was unseaworthy at the time of sailing, and *the unseaworthiness of which was the efficient cause of the loss or damage. Kopitoff v. Wilson,* 1 Q. B. D. 377, was an action by an owner of goods shipped on board the defendant's ship and which were lost whilst on a voyage from Hull to Cronstadt. The declaration alleged a breach of warranty of seaworthiness of the ship by the defendant, and that the goods were lost by reason of the breach, but it was not argued or suggested that if the goods *had not been lost in consequence of the unseaworthiness* the defendant would still have been liable, or that the bill of lading would not have applied. The two questions which were left by Blackburn, *J.*, to the jury were, first, whether the ship was seaworthy, and, secondly, whether, if she was not seaworthy, the goods were lost by her unseaworthiness. *Gilroy v. Price,* (1893) A. C. 56, was a decision on a question of fact, whether the respondents' ship was unseaworthy on sailing, and whether, if so, the bill of lading relieved them notwithstanding as to the goods which were damaged in consequence of such unseaworthiness; and it was held that, the ship being unseaworthy, the respondents lost the protection of the bill of lading as to the damage *so caused.*

"It appears to us, therefore, that whenever a cargo-owner has claimed damages from a shipowner for loss occasioned to his goods on the voyage, and the ship was in fact unseaworthy at the material time,

the cargo-owner has had to prove that the loss was occasioned through or in consequence of the unseaworthiness, and it has not been sufficient to say merely that the ship was unseaworthy, and therefore that he was entitled to recover the loss, although there was no relation between the unseaworthiness and the damage.

"... and in our judgment the plaintiffs are only entitled to recover from the defendants such damages as directly resulted from the want of seaworthiness and not for the damage caused by the water which got into the 'tween decks through the collision between the ship and the dock wall, which was covered by the excepted perils in the charter party, and to the protection of which the shipowner was still entitled, notwithstanding the unseaworthiness of the vessel.

"Appeal allowed with costs."

Kish v. Taylor (1912) A. C. 604 (H. of L.).

In this case *The Europa* was "followed and approved." The charterers had failed to furnish a full cargo of standards, the vessel being then seaworthy. The master, after this default, and in relief of the charterers, obtained additional cargo from other sources, but he overloaded his ship with deck cargo, and by reason of her overloaded condition she was obliged to take refuge in Halifax. Some of the deck cargo was carried overboard, other portions were jettisoned, and still other portions damaged, and the vessel herself was damaged. The cargo-owners claimed that as every shipowner is held to warrant his ship seaworthy, a breach of that warranty had put an end to the contract of affreightment in the bill of lading and consequently that, since the goods had been damaged, the indorsees of the bill of lading were only obliged to pay the shipowners for their services such sum as they might be entitled to receive instead of the remuneration stipulated for in the bill of lading.

The case was heard before Lord Loreburn, *L. C.*, Lord Macnaghten and Lord Atkinson.

"*Lord Atkinson:* Mr. Atkin, on behalf of respondents, was driven to admit that, if his contention on the first point were sound, it would be competent for every indorsee of a bill of lading, whose goods had, in fact, been carried safely and with due expedition to the appointed point of discharge, to contend that, by reason of some of those comparatively trifling omissions on the part of the master which have been held to render a vessel unseaworthy, such as sailing without two anchors, sailing without an adequate supply of medicines and medical appliances for the crew, he was released from all the obligations imposed upon him by the bill of lading, the argument being that the provision of a seaworthy ship was a condition precedent, and not having been performed the contract of affreightment was entirely displaced.

"No authorities were cited in support of this proposition. I think it is in conflict with the principles of English law."

The opinion proceeds:

"The case of *The Europa* (1908) P. 84, is, I think, an authority against the respondents' contention. There the action was brought by the charterer against the shipowner in respect of goods damaged by one of the perils of the sea excepted by the charter party, not by the unseaworthiness of the ship, which was admitted. It was held by Bucknill and Bargrave Deane, *JJ.*, on a line of reasoning which appears to me convincing, that the charter party, notwithstanding this unseaworthiness, was not displaced, that, on the contrary, the clause excepting perils of the sea was alive and operative, and that the shipowner, despite his breach of warranty, was protected under it from liability for the injury done to the goods.

"Neither in *Steel v. State Line Steamship Co.*, 3 App. Cas. 72, nor in *Gilroy, Son & Co. v. Price & Co.* (1893) A. C. 56, was it suggested that the breach of warranty of seaworthiness put an end to the contract of affreightment and relegated the shipowner to his rights as a common carrier by sea. On the contrary,

the observations of Lord Blackburn in the former case, printed at pages 88 and 91, of the report, seem to indicate that the indorsee of the bill of lading might be disentitled to recover, despite the fact of unseaworthiness, unless that unseaworthiness caused the damage. At p. 88 he used these words: 'So here I think that if this failure to make the ship fit for the voyage, if she really was unfit, did exist, then the loss produced immediately by that, though itself a peril of the seas which would have been excepted, is nevertheless a thing for which the shipowner is liable, unless by the terms of his contract he has provided against it'; and at p. 91 he says: 'I have no doubt what the result will be; it will be a question, taking the whole circumstances together, was this ship reasonably fit when she sailed to encounter the perils, and was the damage that happened a consequence of her being unfit, if she was unfit,' which appears to me to imply that if the damage was not a consequence of this unfitness, the shipowner's liability must be determined by the provision of his contract of affreightment, so far as it dealt with that liability.

"In *Baumvoll Manufactur von Scheibler v. Gilchrest & Co.*, (1892) 1 Q. B. 253, 257, Lord Esher is reported to have used these words: 'The first cause of action that they allege is for breach of bills of lading, and secondly, they allege negligence in sending the ship to sea from New Orleans in an unseaworthy condition. It is not sufficient breach of a bill of lading that the ship went to sea in an unseaworthy condition; but it must also be shewn that the unseaworthiness *was the cause of loss.*'"

In their brief filed in this court in opposition to the grant of writs of certiorari in these cases respondent's counsel referred to *Kish v. Taylor* and said that "it has been very greatly limited in the House of Lords in *Atlantic Shipping & Trading Co. v. Dreyfuss,* (1922) A. C. 250.

This is a mistake. *Kish v. Taylor* was not referred to in the opinion of the Court. The only question there was as to whether the right to sue had been lost because of an

arbitration agreement between the parties which contained a three months limitation.* It was said by the Court *arguendo:*

> "It is quite true that the fact of unseaworthiness does not destroy the contract of affreightment *in toto.* Such a doctrine would lead to absurd consequences."

The Europa and *Kish v. Taylor* were followed in the House of Lords in

> *Elder, Dempster & Co. v. Patterson* (1924) A. C. 522.

Here heavy bags of palm kernels were stowed on top of casks of palm oil and crushed them. The trial Judge sustained the libel, holding the chartered owner liable upon the ground of unseaworthiness in not having the hold properly equipped for stowage. The Court of Appeal refused an appeal. The House of Lords reversed the Court of Appeal and dismissed the action upon the ground that the damage was due to bad stowage, in respect of which the chartered owner was protected by the exceptions in the bill of lading.

Lord Sumner (p. 549):

> "Two things must therefore be shown: (1) that the ship was unseaworthy in the sense of the word established by the decisions and (2) that the damage complained of *was caused thereby* and would not have arisen but for that unseaworthiness. For my part I neither think that the alleged defects in the ship and her equipments amount in law to unseaworthiness, nor that the damage to the puncheons of oil was due to them. No structural defect in the GRELWEN caused this damage, nor was her equipment defective."

Viscount Finlay (p. 536), dissented on the ground that the interior arrangements of the ship were not suitable for

*It may be observed that the House of Lords, except in Peerage cases, can not depart from its own precedents. *Gray, Nature and Sources of the Law,* citing *London Street Tramways Co. v. County Council* (1898) A. C. 375.

the service she had undertaken, and that therefore the ship was unseaworthy, but he said:

> "For any loss or damage caused by the unseaworthiness the shipowner is liable, but the mere fact that the ship was unseaworthy does not make the shipowner liable *unless the loss was caused by the unseaworthiness: The Europa* (1908) P. 84; *Kish v. Taylor* (1912) A. C. 604.
>
> "Order of the Court of Appeal reversed, and action dismissed."

The International Movement for Uniformity of Bills of Lading.

Since those cases were decided, the British "Carriage of Goods by Sea Act, 1924," has been enacted, August, 1924. It followed, speaking broadly, the principles of the Harter Act. Canada in 1910, Australia in 1904 and New Zealand in 1908 had passed acts along the same lines. The British Act (Sec. 2) abrogated the common law rule that in every contract of carriage of goods by sea the shipowner (in the absence of an express stipulation) impliedly undertakes that his ship is seaworthy at sailing and fixed his responsibilities and liabilities by statute.

The act contains the following provision:

> "Sec. 2: There shall not be implied in any contract for the carriage of goods by sea to which the Rules apply any absolute undertaking by the carrier of the goods to provide a seaworthy ship."

The Rules are a part of the act:

> "Article III.—RESPONSIBILITIES AND LIABILITIES.
>
> "1. The carrier shall be bound, before and at the beginning of the voyage, to exercise due diligence to—
>
> "(a) Make the ship seaworthy;
>
> "(b) Properly man, equip and supply the ship;
>
> "(c) Make the holds, refrigerating and cool chambers, and all other parts of the ship in which goods are carried, fit and safe for their reception, carriage and preservation."

"Article IV.—Rights and Immunities.

"1. Neither the carrier nor the ship shall be liable for loss or damage arising or resulting from unseaworthiness unless caused by want of due diligence on the part of the carrier to make the ship seaworthy, and to secure that the ship is properly manned, equipped and supplied, and to make the holds, refrigerating and cool chambers and all other parts of the ship in which goods are carried, fit and safe for their reception, carriage and preservation in accordance with the provisions of Paragraph 1 of Article III.

"Whenever loss or damage has resulted from unseaworthiness, the burden of proving the exercise of due diligence shall be on the carrier or other person claiming exemption under this section.

"2. Neither the carrier nor the ship shall be responsible for loss or damage arising or resulting from—

"(a) Act, neglect, or default of the master, mariner, pilot, or the servants of the carrier in the navigation or in the management of the ship."

(Here follow sixteen other possible causes of loss or damage for which the carrier or ship are not responsible.)

The British Act follows the Hague Rules of 1921 and 1922. A Diplomatic Conference on Maritime Law was held at Brussels in October, 1922. It adopted the Hague Rules with slight modifications. See Scrutton, Charter Parties and Bills of Lading, 12th ed. 1925, App. iv.

The intent of Article IV, 1, quoted above, is clearly that the shipowner is not liable for loss or damage to cargo caused by neglect in navigation where the ship was not seaworthy at sailing or where there was lack of due diligence on the part of the carrier to make the ship seaworthy, unless a causal relation is shown between the unseaworthiness and the disaster. It embodies and enacts the rule in the three cases we have just cited, *The Europa, Kish v. Taylor,* and *Elder, Dempster & Co. v. Patterson.*

The interpretation for which we contend will bring the law in the United States into conformity with the law of Great Britain.

In *The Eliza Lines,* 199 U. S. 119, 128, Mr. Justice Holmes, in delivering the opinion of the Court, said:

> "Of course it is desirable, if there is no injustice, that the maritime law of this country and of England should agree."

So also in *Queen Ins. Co. v. Globe, etc., Fire Ins. Co.,* 263 U. S. 487, 493.

In no branch of the law is international uniformity more desirable than in maritime law. If the four great classes of maritime business are included—shipowners, shippers, underwriters and bankers—it concerns greater interests and capital than any other business. Its conduct is closely interwoven internationally. It may be said that every shipping transaction, certainly every large transaction, brings in or may bring in all four of those interests.

It is not necessary to dwell at length on the argument. It speaks for itself. Uniformity of law is one of the great questions of the times.

The Authorities on the Interpretation of Statutes.

United States v. Kirby, 7 Wall. 482, 486.

> "All laws should receive a sensible construction. General terms should be so limited in their application as not to lead to injustice, oppression, or an absurd consequence. It will always, therefore, be presumed that the legislature intended exceptions to its language, which would avoid results of this character. The reason of the law in such cases should prevail over its letter."

The reference in this opinion to a law of Bologna and one of England in 1 Edward II, are too familiar to require quotation.

Hawaii v. Mankichi, 190 U. S. 197, 214.

Here Mr. Justice Brown cites *Lau Ow Bew v. United States,* 144 U. S. 47, 59, and quotes from the opinion of the Chief Justice:

> "Said the Chief Justice: 'Nothing is better settled than that statutes should receive a sensible construction, such as will effectuate the legislative intention, and, if possible, so as to avoid an unjust or an absurd conclusion.' "

The opinion proceeds:

> "Two recent English cases are instructive in this connection: In *Plumstead Board of Works v. Spackman,* L. R. 13 Q. B. D. 878, 887, it was said by the Master of Rolls, afterwards Lord Esher: 'If there are no means of avoiding such an interpretation of the statute,' (as will amount to a great hardship), 'a judge must come to the conclusion that the legislature by inadvertence has committed an act of legislative injustice; but to my mind a judge ought to struggle with all the intellect that he has, and with all the vigor of mind that he has, against such an interpretation of an act of Parliament; and, unless he is forced to come to a contrary conclusion, he ought to assume that it is impossible that the legislature could have so intended.' See also *Ex parte Walton,* L. R. 17 Ch. D. 746."

Jacobson v. Massachusetts, 197 U. S. 11, 39.

> "All laws should receive a sensible construction. General terms should be so limited in their application as not to lead to injustice, oppression or absurd consequence."

Church of the Holy Trinity v. United States. 143 U. S. 457, 459.

Here the Immigration Act (23 Stat. 332) made it unlawful for any person "to prepay the transportation . . . of any alien . . . under contract . . . to perform labor or service of any kind in the United States." The Circuit

Court for the Second Circuit had held that the contract between the Church and an English clergyman to come to New York and act as its rector was within the prohibition of the statute. Its decision was reversed. The opinion of the Court, after pointing out the very broad and inclusive language of the statute upon which the lower Court had based its conclusions, said:

> "While there is great force to this reasoning, we cannot think Congress intended to denounce with penalties a transaction like that in the present case. It is a familiar rule, that a thing may be within the letter of the statute, and yet not within the statute, because not within its spirit, nor within the intention of its makers. This has been often asserted, and the reports are full of cases illustrating its application. This is not the substitution of the will of the judge for that of the legislator, for frequently words of a general meaning are used in a statute, words broad enough to include an act in question, and yet a consideration of the whole legislation, or of the circumstances surrounding its enactment, or the absurd results which follow from giving such broad meaning to the words, makes it unreasonable to believe that the legislator intended to include the particular act."

We shall point out below the "absurd results" which will follow upon the interpretation of the Harter Act adopted by the Circuit Court of Appeals—that no causal relation need be shown between the unseaworthiness and the disaster. We argue that, under the above rules of interpretation, the rule of causal relation can be laid down, because it is not inconsistent with the act, because there is a *casus omissus* in the act, and because it is unreasonable to believe that the legislature intended the "absurd results" which would follow if the act be so interpreted.

We need not ask the court to go as far as it went in the Trinity Church case. It cannot be said here that there are "words of a general meaning" (as said in that case) which, taken in their ordinary sense, would exclude the causal relation rule. It is, rather, a *casus omissus*.

Before considering these "absurd results," something should be said about the history and purpose of the Harter Act.

*The Harter Act—Its History and Purpose.**

The Irrawaddy, 171 U. S. 187, 192.

> "Plainly the main purposes of the act were to relieve the ship owner from liability for latent defects, not discoverable by the utmost care and diligence, and, in event that he has exercised due diligence to make his vessel seaworthy, to exempt him and the ship from responsibility for damage or loss resulting from faults or errors in navigation or in the management of the vessel."

The opinion then points out that as the law stood before the passage of the act a shipowner could not contract against his liability for loss occasioned by negligence or fault because such a contract "was held by the Federal Courts to be contrary to public policy, and, in this particular, the owners of American vessels were at a disadvantage as compared with the owners of foreign vessels, who can contract with shippers against any liability for negligence or fault on the part of the officers and crew. This inequality, of course, operated unfavorably on the American shipowner, and Congress thought fit to remove the disadvantage, not by declaring that it should be competent for the owners of vessels to exempt themselves from liability for

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*The entire text is in the Appendix. Section 3 is as follows:

"Sec. 3. That if the owner of any vessel transporting merchandise or property to or from any port in the United States of America shall exercise due diligence to make the said vessel in all respects seaworthy and properly manned, equipped, and supplied, neither the vessel, her owner or owners, agent, or charterers, shall become or be held responsible for damage or loss resulting from faults or errors in navigation or in the management of said vessel nor shall the vessel, her owner or owners, charterers, agent, or master be held liable for losses arising from dangers of the sea or other navigable waters, acts of God, or public enemies, or the inherent defect, quality, or vice of the thing carried, or from insufficiency of package, or seizure under legal process, or for loss resulting from any act or omission of the shipper or owner of the goods, his agent or representative, or from saving or attempting to save life or property at sea, or from any deviation in rendering such service."

the faults of the master and crew by stipulations to that effect contained in bills of lading, but by enacting that, if the owners exercised due diligence in making their ships seaworthy and in duly manning and equipping them, there should be no liability for the navigation and management of the ships, however faulty."

The Southwark, 191 U. S. 1, 16.

> "The Harter Act, as we understand it, relieves carriers from some of the harsher rules of obligation in force before its passage, but this relief is conditioned upon the discharge of the carrier's duty to use due diligence to provide that which it holds out to the shipper it is competent to furnish, a seaworthy vessel, duly equipped and provided for the purposes of the voyage."

The Jason, 225 U. S. 32, 51.

Here the gist of the act is expressed by Mr. Justice Pitney in rendering the opinion of the Court as follows:

> "Congress says to the shipowner—'In certain respects you shall not be relieved from the responsibilities incident to your public occupation as a common carrier, although the cargo owners agree that you shall be relieved; in certain other respects (provided you fulfill conditions specified) you shall be relieved from responsibilty, even without a stipulation from the owners of cargo.'"

The Act Should Be So Construed As to Include the Rule of Causal Relation Between the Unseaworthiness and the Disaster Causing Cargo Damage.

Let us point out that the owner of a vessel in making his ship seaworthy or using due diligence to make it so, is responsible for the negligence or incompetency of the master or any of the crew charged with a duty in that respect, and with the act of any agent in any port, charged with a like duty. This was held in

International Navigation Co. v. Farr & Bailey Mfg. Co., 181 U. S. 218, 225.

"We do not think that a shipowner exercises due diligence within the meaning of the Act by merely furnishing proper structure and equipment, for the diligence required is diligence to make the ship *in all respects* seaworthy, and that, in our judgment, means due diligence on the part of all the owners' servants in the use of the equipment before the commencement of the voyage and until it is actually commenced." (Italics in the Report.)

In 1 *Parsons, Shipping* (1869), 320, it is said that "a ship must be seaworthy or not seaworthy as a whole." (Quoted in *The Europa,* (1908) P. 84, 96.)

The due diligence required of a shipowner is almost endless in detail. Not only must the ship be made staunch and strong and seaworthy inside and out, but the statutes impose numerous duties upon the owner.

The statutes contain minute requirements as to the manning and equipment of our seagoing steam vessels. Some of them are as follows:

No vessel of the United States shall be navigated unless she have in her service and on board such complement of licensed officers and crew and certified lifeboat men as the local inspector considers necessary for her safe navigation. (37 Stat. 733.)

Every ocean going vessel of 1000 gross tons and over carrying passengers is required to have three licensed mates. (37 Stat. 733.)

Every steamship carrying passengers during the night time is required to keep a suitable number of watchmen in the cabins and on each deck (16 Stat. 442) and to be provided with such number of lifeboats, floats, rafts, life preservers, etc., as will best secure the safety of all persons on board in case of disaster. (16 Stat. 455; 25 Stat. 1012; 33 Stat. 1024; 38 Stat. 1170; 39 Stat. 224.)

The Inspection Service determines the character and extent of this equipment and certifies to it in the "Official Certificate of Inspection." *Ibid.*

All of these statutory injunctions must, of course, be strictly obeyed, otherwise the ship is unseaworthy.

Can it be argued that a failure to meet any one of these minute requirements would deprive the owner of the protection of Section 3 of the act when the failure had no possible relation to the disaster causing the cargo damage? Is that the intent of this remedial act? Under such an interpretation would not a shipowner be worse off than before the act was passed?

Some of the hardships, or rather the absurdities, to which the act might lead if no causal relation need be shown, easily suggest themselves.

Take this case put by an eminent admiralty lawyer: A ship is required to have a fog horn, else she is unseaworthy. She has a collision on a sunshiny day by fault in navigation, which under the act is an excepted risk. Her cargo is damaged. Is she deprived of the protection of the act?

In *The Turret Crown*, 282 Fed. 354, 359, Ward, *C. J.*, found that the ship was unseaworthy at sailing in respect of her steering gear, but that it was "bottom damage which injured the cargo," and that "the breaking down of the steering gear, instead of increasing, decreased the strain." That is, the defective steering gear (which made her unseaworthy at sailing) actually lessened the effect of the bottom damage which injured the cargo.

Consider the case of a ship which was seaworthy at sailing except as to her refrigerating apparatus, which was defective at sailing. Half of her cargo was fruit or meat, and half was goods not requiring refrigeration. She stranded by her fault in navigation and her cargo was damaged. It would be a narrow interpretation of the Harter Act which would place upon the shipowner a liability for the loss of the unrefrigerated cargo by the disaster.

Stress has been placed by opposing counsel upon the words in the act "in all respects," and from them they argue against the causal relation rule. But they do not support their argument. Indeed, they are in no way applicable to it. Their purpose is only to emphasize the quality or degree of seaworthiness. The act requires that the ship must be seaworthy "in all respects." Every minute requirement of seaworthiness must be provided for or she is unseaworthy. But whether or not to apply the rule of causal relation is an entirely different question. That question relates only to the effect of the absence of such seaworthiness when the ship has met one of the excepted risks as to which the unseaworthiness has no causal relation.

As we might say, the words "in all respects" apply only to the ship before sailing. The causal relation rule can arise only during the voyage.

An article in *16 Harv. Law Rev. 157, 167,* by Professor Frederick Green (1903) is instructive:

> "Suppose, however, that there has been neither seaworthiness nor diligence to make seaworthy, yet that damage results solely from fault in navigation. A steamship has a cracked shaft that will be dangerous in rough weather, but by negligence the crack is not discovered and she is permitted to sail without repair. No rough weather occurs. The steamer crosses the ocean in safety, but negligently comes into collision in the harbor of destination. Is the owner, who would not have been made liable for damage to his cargo by the negligent failure to examine the shaft before sailing, provided it had not been cracked, to be rendered liable by the mere fact that a crack in it existed, although its existence had not the slightest connection with the damage? The proviso is whimsical, if for such an irrelevant accident it excludes the owner from an exemption he would otherwise receive.
>
> "No case has been found in which the owner was so excluded. Although the passage last quoted from the opinion of the Supreme Court may seem at first sight to say that he should be excluded, it will appear

on examination that it does not say so.* It means that if the cause of the loss is a failure to use care to make seaworthy, the case is not within the exemption, even though such failure is a fault in management. It does not mean that exemption would be refused for a fault in management, because of a failure to use care to make seaworthy, distinct from the fault in management and not contributing to the loss.

"The sole effect of the proviso seems to be that which has just been suggested. When section three says that the owner shall not be liable for fault in navigation or management, provided diligence has been used to make seaworthy, it excludes from fault in management all carelessness in preparing the vessel for the voyage. Under this interpretation, the act is reasonable and consistent, and its language is such as might naturally be used to express its intent. The interpretation is a literal one as well. For the diligence to which the proviso refers, is diligence which it is the carrier's duty to employ. But so far as concerns liability for damage to cargo, his only duty is to avoid such damage, and, if no damage results from his lack of diligence, the carrier is at liberty to be as careless as he pleases. If his lack of diligence does not contribute to the damage, he has used all the diligence that was due, and the proviso is fulfilled. That this is true when the vessel is seaworthy, has already been seen, and it proves that the act is not intended to deprive the owner of exemption, merely because he is careless in equipping his ship. . . . *In short, it means, it is submitted, that the damage for which exemption is granted, must not be damage resulting from failure to employ that diligence in preparing the vessel for sea upon the exercise of which the act insists.* The proviso is inserted only to make it clear that the exoneration granted is in no way to derogate from the obligation to take due care for seaworthiness. It was necessary to insert it because fault in management might otherwise be supposed to include fault in equipping the vessel for sea. There are English cases in which even the phrase 'improper navigation' was held to include such fault."

* International Navigation Co. v. Farr & Bailey Mfg. Co., 181 U. S. 218, 226.

In a memorandum filed in this case as *amicus curiæ* in aid of the petition for writs of *certiorari,* Mr. Roscoe H. Hupper said

> "The decision of the Circuit Court of Appeals for the Third Circuit, now sought to be reviewed, deprives the shipowner of this benefit if the vessel was unseaworthy in any respect whatsoever, irrespective of this unseaworthiness having no relation to the damage.
>
> "Section 3 of the Harter Act ever since its enactment in 1893 has been generally understood to confer on the shipowner certain immunities to offset certain burdens imposed by Sections 1 and 2 as to the terms of the bills of lading. By the decision of the Circuit Court of Appeals, Section 3, instead of granting benefits, imposes a burden which did not exist before the statute was enacted. Granting all that can be said as to a public policy against unseaworthiness of vessels, it is believed that no support can be found for a doctrine which penalizes the shipowner if the unseaworthiness (however trivial) has nothing to do with the damage. Such a result seems unjust and not in accord with the purpose of the statute in view of the conditions with which it dealt."

From a like memorandum filed by Mr. John W. Griffin, we quote:

> "In substance, the Circuit Court of Appeals states that unless the carrier proves that due diligence has been exercised to make the vessel in all respects seaworthy, he loses the right to take advantage of the Harter Act, even though the failure to make the vessel seaworthy has nothing whatever to do with the loss.
>
> "While the Circuit Court of Appeals refers only to the first exception from liability above mentioned, the same principle must apply to all the other exemptions contained in the statute.
>
> "Therefore, under the decision of the Circuit Court of Appeals, if the shipowner failed to make his vessel seaworthy, he would be liable for losses due to the Act of God, the public enemy, the inherent vice of the thing carried, insufficiency of package, or seizure

under legal process, even though the vessel's lack of seaworthiness had no possible connection with the loss, and although the goods suffered no damage whatsoever from the vessel's lack of seaworthiness.

"This argument might be elaborated and other illustrations drawn, showing the almost unthinkable results which follow from the rule laid down by the Circuit Court of Appeals, as, for instance, where a ship is unfit as to a small part of her cargo, but entirely seaworthy as to the remainder. It is believed, however, that enough has been said to show that the interpretation of the Circuit Court of Appeals is a perversion of the statute.

"The purpose of the Harter Act was, as is well known, to relieve American shipowners from certain burdens to which they were otherwise subject.

"If the construction put upon the Act in the Third Circuit be the correct one, shipowners are now much worse off than they were prior to 1893."

The same argument was made when the causal relation rule came up in England under the then common law rule of implied warranty of seaworthiness, thus:

In *Kish v. Taylor,* (1912) A. C. 604, 615, Lord Atkinson said (p. 615):

"Mr. Atkin, on behalf of the respondents, was driven to admit that, if his contention on the first point were sound, it would be competent for every indorsee of a bill of lading, whose goods had, in fact, been carried safely and with due expedition to the appointed port of discharge, to contend that, by reason of some of those comparatively trifling omissions on the part of the master which have been held to render a vessel unseaworthy, such as sailing without two anchors, sailing without an adequate supply of medicines and medical appliances for the crew he was released from all obligations imposed upon him by the bill of lading, the argument being that the provision of a seaworthy ship was a condition precedent, and not having been performed the contract of affreightment was entirely displaced."

Lord Ellenborough said in *Havelock v. Geddes,* 10 East 555, 563:

> "And to be sure, if this [a covenant to make the ship tight and strong, etc.], were a condition precedent the neglect of putting in a single nail for a single moment after the ship ought to have been made tight, staunch, etc., would be a breach of the condition, and a defense to the whole of plaintiff's demand."

There is no middle ground of decision. It must be, we submit, either a rule of rigid requirement down to minute details of unseaworthiness, with all of its consequences, or else the causal relation rule.*

The Harter Act is concerned only with seaworthiness in which deviation plays no part. The sole effect of deviation is to displace the bill of lading. *The St. Johns,* 263 U. S. 119. If the "WILLDOMINO" was seaworthy when she sailed to North Sydney, the owner is protected under Section 3 of the Harter Act. It would make no difference whether she had the right to go to North Sydney or not. She did go there. That she was in fact seaworthy and had ample coal when she sailed on that stage cannot be disputed. She reached North Sydney with a surplus of coal.

We submit that the Circuit Court of Appeals erred in not applying the rule of causal relation and should be reversed.

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*The conclusion which opposing counsel are asking the Court to reach in refusing to interpret the Harter Act upon the rule of causal relation is so accurately expressed in *The Merchant of Venice,* Act IV, Scene 1, that it is here quoted:

> "*Portia.* Therefore prepare thee to cut off the flesh.
> Shed thou no blood, nor cut thou less nor more
> But just a pound of flesh: if thou cuttest more
> Or less than a just pound, be it but so much
> As makes it light or heavy in the substance
> Or the division of the twentieth part
> Of one poor scruple, nay, if the scale do turn
> But in the estimation of a hair,
> Thou diest and all thy goods are confiscate."

POINT IV.

The petitioner took reasonable care of the damaged merchandise after the stranding. The Circuit Court of Appeals erred in finding that it did not do so.

The District Court found that the petitioner took reasonable care of the merchandise after it was damaged (R. 1381, 1384). The Circuit Court of Appeals held that it failed to take such care in that it did not remove the merchandise from the damaged hold on August 25th when the vessel first entered drydock (R. 1436). In all other respects it agreed with the District Court that the petitioner exercised reasonable care (R. 1435-6) and this joint finding is fully supported by the evidence.

In reaching the conclusion that it was negligence for the petitioner not to discharge the merchandise on August 25th, the Circuit Court of Appeals overlooked the uncontradicted testimony that both parties and also the underwriters considered at that time that the merchandise was a total loss.

The citrate of lime when shipped was a dry powder, consisting of condensed lemon juice combined with chalk (lime) (R. 715). The chalk is merely a carrier for the citric acid (R. 708). This commodity is not generally known in commerce. Its use is for conversion into citric acid (R. 741). There were not more than a half-dozen consumers of the commodity in the United States in 1920 (R. 748). Cross-examination by respondents' counsel indicates that besides the two respondents herein, there was only one firm in the United States that imported it (R. 182).

The shippers of the citrate of lime gave the master and chief officer no notice of its properties or value (R. 354, 367). The vessel stranded on July 24th at 6.30 A. M. (R. 1063) and the citrate of lime was submerged within five or ten minutes thereafter (R. 354). The ship's officers be-

lieved that it was at once spoiled by this submersion (R. 376). The port warden and the surveyors at Halifax who surveyed the vessel and cargo at that port several days after the stranding believed that it was then damaged beyond saving (R. 516, 526, 599, 610).

The vessel arrived at New York on August 7th, commenced discharging on August 9th, completed discharging other cargo which was not damaged and was placed in drydock for a survey for repairs on August 25th, which was thirty-two days after the stranding. During this time the citrate of lime was completely under water with the exception of a part tier on top which apparently was entirely under water part of the time and only partly under water the rest of the time. The undamaged cargo was expeditiously discharged (R. 227, 247).

The vessel remained in drydock twenty-six hours beginning August 25th for survey by the contractors who were bidding for the repairs, and was then placed in wet dock (R. 81). On August 28th she was again placed in drydock for eight hours while the repair men prepared patterns for the required new parts (R. 82) and was then put into the water while these parts were being fabricated. She was again put in drydock on September 21st, where she remained until October 2d while the new parts were fixed in position (R. 82). The shipyards were very busy at the time and drydocks were in constant demand (R. 772). The repairs were expeditiously made (R. 132). The citrate of lime remained in the hold until the completion of repairs on October 2d when it was tendered to respondents and refused (R. 1324). Petitioner's proof showed that the merchandise could not be discharged while the ship was on drydock (R. 113, 122, 132, 210, 356, 378, 383, 402).

The properties of citrate of lime are not commonly known to any persons except dealers in the merchandise (R. 181, 714) and to expert chemists. The testimony of the experts shows that the commodity is practically insoluble in sea water (R. 708, 737); that upon mixture with sea water

there is considerable decomposition caused by bacterial action (R. 167-8, 728-730). The bacteria exist in water and air (R. 716, 734) and also in the impurities in the commodity itself (R. 715) and feed upon the oxygen in the water until the oxygen is exhausted when they die and the decomposition ceases (R. 168-9). This decomposition results in the loss of some of the citric acid content (R. 167-8).

Respondents' experts testified that in their opinion the exposure of the wet citrate of lime to the air when the vessel went into drydock, and its later reimmersion in water when she went off the drydock, twice repeated, caused the bacterial processes to begin anew with additional loss of citric acid content (R. 711, 739). This contention is based upon the premise that these processes had ended before the drydocking, because of the death of the bacteria caused by the exhaustion of the oxygen in the water. This can hardly be said to have been established in view of the fact that the damage to the hull of the vessel was sufficient to allow a continual change of the water in the hold (R. 761, 853).

Prof. Simmons, testified as an expert from actual experiments with citrate of lime and sea water, which he made in preparation for the trial, extending over a period of two months, that these bacterial processes ceased at the end of the third week, because of a protective coating of calcium carbonate which formed upon the citrate of lime and prevented further decomposition by the bacteria (R. 169). His tests showed that there was no loss of the citric acid content after the third day of immersion in sea water (R. 181). Removing the citrate of lime from the water and immersing it again did not accelerate the decomposition according to his tests (R. 172). His opinion was that the citrate of lime suffered its entire damage within a few days after the stranding, and did not suffer any additional damage until it was unloaded. He testified that during the process of unloading, and handling, the citrate would be more or less disturbed, and that that would break up the

protective coating of calcium carbonate, and allow air to get in and set up decomposition anew (R. 172). Mr. Stillwell's testimony was generally to the same effect (R. 155, 161).

Admitting for the purposes of the argument and not otherwise, that the contention of respondents' experts is correct, nevertheless we submit that the petitioner should not be held liable for any loss due therefrom, in the absence of either knowledge by or notice to it of the properties of the commodity. Petitioner did not have such knowledge (R. 114, 217). Very few persons did (R. 714). Prof. Simmons, a college professor of chemistry for many years and director of a large chemical laboratory, testified that "few chemists unless they handled it or experimented with it would have known of the way in which calcium citrate decomposes due to bacteriological action" (R. 181).

Respondents, on the other hand, must have had knowledge of these peculiar properties of citrate of lime. There appears to have been only one other concern that imported it from abroad (R. 182). Both respondents were New Jersey corporations, and their offices were within a short distance of the places in New Jersey where the ship discharged and was repaired. They had every opportunity to advise the petitioner of these properties of the merchandise and to notify it of what ought to be done in order to save any value that remained (R. 114, 217). They gave no such advice, and made no suggestions. Instead, they claimed that the shipment was a total loss and collected their insurance from their underwriters.

Respondents' attitude is similar to that of the underwriters in *The Strathdon,* 89 Fed. 374, 381, referred to by the trial court in its opinion (R. 1384). They preferred "to express no advice or wish concerning the disposition of the cargo but rather to leave the carrier in his embarrassment unaided by counsel and unconstrained by demand for any definite action."

Mr. Martin, the marine surveyor in charge of repairs to the ship, testified that all the surveyors assumed that the cargo had been under water so long "that no more damage could be done to it while the vessel was undergoing repairs" (R. 135, 132, 140).

The cargo underwriters and their surveyors were undoubtedly of the same opinion as Mr. Martin. The report of Mr. Rodman, the surveyor for the Insurance Company of North America (underwriter on the Citro Chemical Company shipment) shows that he had notice of the loss on August 2, 1920 (R. 904) which was before the vessel sailed from Halifax. He was on board the vessel in New York harbor on August 9th, 11th, 17th and 24th (R. 249, 250). On August 28th, when the vessel was in drydock, he took samples of the citrate which he submitted to Scherer Bros., chemists employed by the underwriters, for analysis (R. 251), who had an analysis made by Dr. Saarbuck (R. 758). He gave his certificate of analysis on September 2, 1920 (R. 911). Scherer Bros. on the same day submitted their certificate of analysis to Rodman (R. 903). Rodman testified that Scherer Bros. then stated to him that they considered the shipment worthless (R. 254). Rodman thereupon communicated with respondent, Citro Chemical Company. He testified that when he so communicated, the respondents were "inclined to consider the situation hopeless" (R. 253). The samples upon which this analysis was based were taken from the casks on August 28th when the vessel was in drydock and only three days after she first entered it (R. 251).

Mr. Liesegang, the surveyor for the Queen Insurance Company (underwriter on Pfizer shipment), was employed by the underwriters on August 10th and proceeded on board the vessel on the same day (R. 196, 886). He had previously been aboard as surveyor for the general average adjusters (R. 192). He knew on August 10th that the citrate was covered by water (R. 196, 886) and so advised respond-

ent Pfizer by telephone, apparently on the same day (R. 194).

The citrate was covered by cork and could not be examined until the cork was discharged. On August 23rd, after the cork had been discharged, Liesegang, with Haffey, respondent Pfizer's traffic manager, examined the top tier of citrate casks which tier was then partly out of water, opened one of them, and took a sample. Haffey told Liesegang at that time that *he considered the citrate of lime was a total loss,* but wished to take samples for analysis (R. 193, 681, 887). A day or two later, when the vessel was still at 135th Street (before she was first drydocked), Liesegang had further samples taken from other casks for analysis (R. 197). These samples were also sent to Scherer Bros., chemists, and were analyzed by Dr. Saarbuck (R. 759, 911). An analysis was also apparently made at the Pfizer factory, but was not produced at the trial although called for (R. 682).

On September 2nd respondent Pfizer wrote petitioner stating that "from samples taken from of about 40 casks out of this shipment *it appears that these goods will be a total loss* due to the fact that they have been in water for so long a period, and we hereby notify you that we reserve the right to file claim" (R. 682, 891). The samples referred to in this letter were evidently those above mentioned which were taken when the vessel was at 135th Street *before she entered the drydock* (R. 197).

Respondent Pfizer notified the underwriters that the goods were a total loss, abandoned the merchandise to them (R. 198) and collected its insurance (R. 682). On August 23rd or 24th it informed the customs authorities that the goods were a total loss, and asked for a refund of duties (R. 688).

The above testimony was taken orally before the trial court. Most of it was drawn from the lips of witnesses

hostile to the petitioner. It evidently impressed the trial judge for he dealt with it at length in his opinion (R. 1383), and found that as a result of the analysis of the samples taken prior to August 27th "it was stated that the shipments were total losses."

The law is undisputed. Petitioner was not an insurer of the damaged merchandise provided the damage occurred through an excepted cause. After the damage occurred, petitioner was only required to take reasonable care of it. *Propeller Niagara v. Cordes*, 21 How. 7; *McNeil Higgins v. Old Dominion S. S. Co.*, 235 Fed. 854; *S. S. Lynx v. King & Fisher*, 12 Mo. 272.

The finding of the Circuit Court of Appeals that the petitioner was negligent in caring for the damaged merchandise is not substantiated by the proof and is erroneous.

Finally

We submit that:

(1) The "WILLDOMINO" was seaworthy on every stage of her voyage.

(2) Her putting into North Sydney was not a deviation.

(3) Even if sailing to North Sydney was a deviation, that does not deprive the shipowner of the protection of Section 3 of the Harter Act which is only concerned with seaworthiness.

(4) In any case, inasmuch as no causal relation was shown between her unseaworthiness (if it existed) and the disaster which caused the damage to the respondents' goods, the ship and the shipowner are protected from liability by Section 3 of the Harter Act.

(5) Proper care was taken of the damaged cargo after stranding.

POINT V.

The decrees of the Circuit Court of Appeals should be reversed.

FRANCIS RAWLE,
GEORGE W. BETTS, JR.,
GEORGE C. SPRAGUE,
JOSEPH W. HENDERSON,
Counsel for Petitioners.

December 30, 1925.

APPENDIX.

The Harter Act (27 Stat. 445).

AN ACT relating to navigation of vessels, bills of lading, and to certain obligations, duties, and rights in connection with the carriage of property.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it shall not be lawful for the manager, agent, master, or owner of any vessel transporting merchandise or property from or between ports of the United States and foreign ports to insert in any bill of lading or shipping document any clause, covenant, or agreement whereby it, he, or they shall be relieved from liability for loss or damage arising from negligence, fault, or failure in proper loading, stowage, custody, care, or proper delivery of any and all lawful merchandise or property committed to its or their charge. Any and all words or clauses of such import inserted in bills of lading or shipping receipts shall be null and void and of no effect.

SEC. 2. That it shall not be lawful for any vessel transporting merchandise or property from or between ports of the United States of America and foreign ports, her owner, master, agent, or manager, to insert in any bill of lading or shipping document any covenant or agreement whereby the obligations of the owner or owners of said vessel to exercise due diligence, properly equip, man, provision, and outfit said vessel, and to make said vessel seaworthy and capable of performing her intended voyage, or whereby the obligations of the master, officers, agents, or servants to carefully handle and stow her cargo and to care for and properly deliver same, shall in any wise be lessened, weakened, or avoided.

Sec. 3. That if the owner of any vessel transporting merchandise or property to or from any port in the United States of America shall exercise due diligence to make the said vessel in all respects seaworthy and properly manned, equipped, and supplied, neither the vessel, her owner or owners, agent, or charterers, shall become or be held responsible for damage or loss resulting from faults or errors in navigation or in the management of said vessel nor shall the vessel, her owner or owners, charterers, agent, or master be held liable for losses arising from dangers of the sea or other navigable waters, acts of God, or public enemies, or the inherent defect, quality, or vice of the thing carried, or from insufficiency of package, or seizure under legal process, or for loss resulting from any act or omission of the shipper or owner of the goods, his agent or representative, or from saving or attempting to save life or property at sea, or from any deviation in rendering such service.

Sec. 4. That it shall be the duty of the owner or owners, masters, or agent of any vessel transporting merchandise or property from or between ports of the United States and foreign ports to issue to shippers of any lawful merchandise a bill of lading, or shipping document, stating, among other things, the marks necessary for identification, number of packages, or quantity, stating whether it be carrier's or shipper's weight, and apparent order or condition of such merchandise or property delivered to and received by the owner, master, or agent of the vessel for transportation, and such document shall be *prima facie* evidence of the receipt of the merchandise therein described.

Sec. 5. That for a violation of any of the provisions of this act the agent, owner or master of the vessel guilty of such violation, and who refuses to issue on demand the bill of lading herein provided for, shall be liable to a fine not exceeding two thousand dollars. The amount of the fine and costs for such violation shall be a lien upon the vessel,

whose agent, owner, or master is guilty of such violation, and such vessel may be libeled therefor in any district court of the United States, within whose jurisdiction the vessel may be found. One-half of such penalty shall go to the party injured by such violation and the remainder to the Government of the United States.

Sec. 6. That this act shall not be held to modify or repeal sections forty-two hundred and eighty-one, forty-two hundred and eighty-two, and forty-two hundred and eighty-three of the Revised Statutes of the United States, or any other statute defining the liability of vessels, their owners, or representatives.

Sec. 7. Sections one and four of this act shall not apply to the transportation of live animals.

Sec. 8. That this act shall take effect from and after the first day of July, eighteen hundred and ninety-three.

Approved, February 13, 1893.

Office Supreme Court, U. S.
FILED
OCT 6 1924
WM. R. STANSBURY
CLERK

Supreme Court of the United States.

STEAMSHIP WILLDOMINO, her engines, boilers, etc.,
Petitioner (Respondent Below),
against
CITRO CHEMICAL COMPANY OF AMERICA,
Respondent (Libelant Below).

STEAMSHIP WILLDOMINO, her engines, boilers, etc.,
Petitioner (Respondent Below),
against
CHARLES PFIZER & COMPANY, INC.,
Respondent (Libelant Below).

CONVOY STEAMSHIP COMPANY, LTD., owner of the Steamship WILLDOMINO, her engines, boilers, etc.,
Petitioner (Libelant Below),
against
CHARLES PFIZER COMPANY, INC.,
Respondent (Respondent Below).

October Term, 1925
Nos. [redacted] 165
166 167

BRIEF SUBMITTED ON BEHALF OF CONVOY STEAMSHIP COMPANY, LTD., BY JOHN W. GRIFFIN, AMICUS CURIAE.

The purpose of the argument which follows is to point out to this Court the exceeding import-

ance and probable error of that part of the opinion of the Circuit Court of Appeals which is quoted at the bottom of p. 11 and top of p. 12 of the petition.

In substance, the Circuit Court of Appeals states that unless the carrier proves that due diligence has been exercised to make the vessel in all respects seaworthy, he looses the right to take advantage of the Harter Act, even though the failure to make the vessel seaworthy has nothing whatever to do with the loss.

The third section of the Harter Act, to which the court below was directing its remarks, provides (omitting unnecessary verbiage) that if the shipowner shall exercise due diligence to make his vessel seaworthy, he shall not be held responsible for damage or loss resulting:

(1) From faults or errors in navigation or management.

(2) From dangers of the sea or other navigable waters;

(3) From acts of God or public enemies;

(4) From the inherent defect, quality or vice of the thing carried;

(5) From insufficiency of package;

(6) From seizure under legal process, and so forth.

While the Circuit Court of Appeals refers only to the first exception from liability above mentioned, the same principle must apply to all of the other exemptions contained in the statute.

Therefore, under the decision of the Circuit Court of Appeals, if the shipowner failed to make his vessel seaworthy, he would be liable for losses due to the act of God, the public enemy, the inherent vice of the thing carried, insufficiency of

package, or seizure under legal process, even though the vessel's lack of seaworthiness had no possible connection with the loss, and although the goods suffered no damage whatsoever from the vessel's lack of seaworthiness.

This argument might be elaborated and other illustrations drawn, showing the almost unthinkable results which follow from the rule laid down by the Circuit Court of Appeals,—as for instance, where a ship is unfit as to a small part of her cargo, but entirely seaworthy as to the remainder. It is believed, however, that enough has been said to show that the interpretation of the Circuit Court of Appeals is a perversion of the statute.

The purpose of the Harter Act was, as is well known, to relieve American shipowners from certain burdens to which they were otherwise subject.

> *The Irrawaddy*, 171 U. S. 187, 193;
> *The Jason*, 225 U. S. 32.

If the construction put upon the Act in the Third Circuit be the correct one, shipowners are now much worse off than they were prior to 1893.

As is pointed out in the petition and brief, a different conclusion has been reached in the Second Circuit.

It is respectfully submitted that the petition for writs of certiorari should be granted.

JOHN W. GRIFFIN,
Amicus Curiæ.

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM 1924 1925

Office Supreme Court, U. S.
FILED
OCT 6 1924
WM. R. STANSBURY
CLERK

Steamship WILLDOMINO, her engines, boilers, etc.
Petitioner (Respondent Below)

AGAINST

CITRO CHEMICAL COMPANY OF AMERICA
Respondent (Libellant Below)

Steamship WILLDOMINO, her engines, boilers, etc.
Petitioner (Respondent Below)

AGAINST

CHARLES PFIZER & COMPANY, INC.
Respondent (Libellant Below)

CONVOY STEAMSHIP COMPANY, LTD., owner of the Steamship WILLDOMINO, her engines, boilers, etc.
Petitioner (Libellant Below)

AGAINST

CHARLES PFIZER COMPANY, INC.
Respondent (Respondent Below)

Nos. [illegible] 165 166 167

PETITION FOR LEAVE TO FILE MEMORANDUM

The undersigned respectfully petitions this Court for leave to file the following memorandum as *amicus curiæ* in support of the petition of Convoy Steamship Company, Ltd., for a writ of certiorari.

It is of the utmost importance to all shipping interests, including shippers and marine underwriters as well as shipowners, to have the authoritative decision of this Court on the question raised on Section 3 of the Harter

Act as to the necessity of a causal connection between unseaworthiness and damage. Undoubtedly a large proportion of ships putting to sea are not seaworthy in every respect in the strictest sense, but such unseaworthiness has no causal relation to the damage claims arising out of the voyage.

The decisions of the Circuit Court of Appeals for the Second Circuit cited by the petitioner hold the shipowner entitled to the benefit of Section 3 unless the unseaworthiness existing caused the damage. The decision of the Circuit Court of Appeals for the Third Circuit, now sought to be reviewed, deprives the shipowner of this benefit if the vessel was unseaworthy in any respect whatsoever, irrespective of this unseaworthiness having no relation to the damage.

Section 3 of the Harter Act ever since its enactment in 1893 has been generally understood to confer on the shipowner certain immunities to offset certain burdens imposed by Sections 1 and 2 as to the terms of the bills of lading. By the decision of the Circuit Court of Appeals, Section 3, instead of granting benefits, imposes a burden which did not exist before the statute was enacted. Granting all that can be said as to a public policy against unseaworthiness of vessels, it is believed that no support can be found for a doctrine which penalizes the shipowner if the unseaworthiness (however trivial) has nothing to do with the damage. Such a result seems unjust and not in accord with the purpose of the statute in view of the conditions with which it dealt.

It is respectfully submitted that the case is of sufficient public importance to justify the granting of a writ of certiorari.

ROSCOE H. HUPPER
As *Amicus Curiæ*.

27 William Street,
New York City.

October 4, 1924.

Nos. 165

166 167 IN THE

Supreme Court of the [illegible]

OCTOBER TERM, [illegible]

Steamship "WILLDOMINO," her engines, boilers, etc.,
Petitioner (Respondent Below),

—against—

CITRO CHEMICAL COMPANY OF AMERICA,
Respondent (Libellant Below).

Steamship "WILLDOMINO," her engines, boilers, etc.,
Petitioner (Respondent Below),

—against—

CHARLES PFIZER & COMPANY, INC.,
Respondent (Libellant Below).

CONVOY STEAMSHIP COMPANY, LTD., owner of the Steamship "WILLDOMINO," her engines, boilers, etc.,
Petitioner (Libellant Below),

—against—

CHARLES PFIZER & COMPANY, INC.,
Respondent (Respondent Below).

BRIEF IN OPPOSITION TO PETITION FOR WRIT OF CERTIORARI.

BISHAM, SINGLAR & JONES,
McDERMOTT, ENRIGHT & CARPENTER,
Proctors for Respondents.

D. Roger Englar,
James D. Carpenter, Jr.,
Of Counsel.

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IN THE

Supreme Court of the United States.

OCTOBER TERM, 1924—NOS. 631, 632, 633.

Steamship "WILLDOMINO," her engines, boilers, etc.,
Petitioner (Respondent Below),

—against—

CITRO CHEMICAL COMPANY OF AMERICA,
Respondent (Libellant Below).

Steamship "WILLDOMINO," her engines, boilers, etc.,
Petitioner (Respondent Below),

—against—

CHARLES PFIZER & COMPANY, INC.,
Respondent (Libellant Below).

CONVOY STEAMSHIP COMPANY, LTD., owner of the Steamship "WILLDOMINO," her engines, boilers, etc.,
Petitioner (Libellant Below),

—against—

CHARLES PFIZER & COMPANY, INC.,
Respondent (Respondent Below).

BRIEF IN OPPOSITION TO PETITION FOR WRIT OF CERTIORARI.

Basis of the Decision Below.

The opinion of the Circuit Court of Appeals shows that the decision is based on two grounds, either of which is clearly sufficient to sustain the decree.

1. The Court found as a fact that the owner of the *Willdomino* deliberately planned that the ship should go to North Sydney for the purpose of obtaining bunker coal, not merely to complete the voyage to New York, but also to furnish the *Willdomino,* or one of its other vessels, with bunker coal for the next eastbound voyage, because coal was cheaper at North Sydney than in New York and, also, because there were no difficulties and delays in obtaining coal at North Sydney such as existed, at that time, at New York.

It is, of course, well settled that a departure from the voyage for a purpose unconnected with the voyage itself, such as getting bunkers for a subsequent voyage, is a deviation which deprives the vessel of all provisions for its benefit in the bills of lading and makes it an insurer of the goods. (See the cases collected in Point Two of this brief.) Unless this Court reverses the finding of fact as to the purpose of the owner in having the vessel call at North Sydney, the decision below is clearly sustainable on this ground.

2. The Court also found that the vessel sailed on her voyage with insufficient coal and that such sailing was due directly to the instructions sent by the owner to the master at Gibraltar. This clearly amounted to unseaworthiness with the knowledge and privity of the owner. The Court further found that the stranding and damage to cargo was due to negligent navigation by the master, in that he failed to take soundings while skirting the dangerous coast between North Sydney and Halifax. The Court thereupon held the owner liable for the negligent navigation and fur-

ther held that he was not entitled to claim the benefit of the Harter Act because he had not used due diligence to make the vessel seaworthy. This decision is in accordance with numerous decisions of this Court, all of which are referred to in Point One of this brief, and is not in conflict with any decision of any other Circuit Court of Appeals. The only case that the petitioner cites in the petition as being in conflict with the decision below on this point is a decision of the Circuit Court of Appeals for the Fourth Circuit (Petition, p. 13):

> *The Turret Crown*, 284 Fed. 439, at page 444.

This case does not even discuss the Harter Act, for the reason that there was no finding of negligent navigation and, therefore, the question here involved did not arise. This case is also more fully discussed below in Point One of this brief.

Facts About the Shortage of Fuel.

The outstanding feature of the present case is the extraordinary cable which the owners of the *Willdomino* sent to her master at Gibraltar, reading as follows:

> "Your coal requirements excessive cost of bunkers Gibraltar very high make accurate measurement remaining bunkers if not enough to make North Sydney take only enough to reach there cut down consumption in every way if fuel runs short reaching coast cut out one boiler" (Petition, p. 6).

This cable was an express command to the master

to sail with his vessel unseaworthy. The witnesses on both sides agreed that good practice requires a vessel to sail with from 20 to 25% more fuel than she is expected to use, under normal conditions (Gurge, fol. 2532; Jeffcott, fols. 2392 to 2396; Williams, fol. 2595; Donaldson, fol. 1433). The cable above quoted clearly directed the master to violate this rule. It instructs him to take only enough fuel to make North Sydney, and refers to the possibility that fuel may run short approaching the coast. This is exactly what happened, and it was owing to this shortage of fuel that the vessel had to put into North Sydney and then skirt a dangerous coast, with which her navigators were wholly unfamiliar, in proceeding from there to Halifax (Petition, pp. 7 and 8). These facts are to be borne in mind in connection with the petitioner's assertion that there was no causal connection between the unseaworthiness and the stranding of the *Willdomino*.

It is true that the breakdown of the high pressure turbine intervened between the coaling at Gibraltar and the sailing from Ponta Delgada; but this did not break the causal relation between the owners' cable and the lack of sufficient fuel on leaving Ponta Delgada, for it appears that the cable received at Gibraltar was still in force at Ponta Delgada. The master testified as follows:

> "Q. When you left Ponta Delgada did you have the port of Sydney in mind at all as a place that you might go to? A. Yes. Q. Why? A. *My owners had instructed*

me at Gibraltar to bunker at North Sydney if I found it necessary" (Beeby, fol. 1083).

Moreover, the officers of the *Willdomino* testified, and the petitioner contended in both of the lower courts, that the *Willdomino,* when she left Ponta Delgada, actually sailed for New York and only put into North Sydney by reason of a shortage of fuel which developed in midocean. The District Court actually adopted this view, and the petitioner urged it strenuously in the Circuit Court of Appeals, but without success. As pointed out by the Circuit Court of Appeals, it is readily demonstrable from the petitioner's own evidence, that the supply of coal with which the *Willdomino* left Ponta Delgada was wholly insufficient for a voyage to New York. Nevertheless, the officers testified positively that the vessel sailed for New York, and in view of this fact, and the cable quoted above, the Circuit Court of Appeals reached the conclusion that the owners deliberately planned to have the vessel put into North Sydney under the guise of a vessel seeking a port of distress. We believe that no other conclusion is possible on the evidence, and if it be accepted that the vessel did sail for New York, her unseaworthiness is even more obvious, inasmuch as she not only had no margin of safety but actually had not fuel enough to bring her within several hundred miles of New York.

Owing to the strike at North Sydney, no considerable amount of fuel was obtainable there, and her owners ordered her to Halifax. This order was sent by wireless at a time when the vessel was still a day out from North Sydney. If she had not been short of fuel she could have

proceeded direct to Halifax, and would have had no occasion to skirt the dangerous Nova Scotian coast. Her fuel supply was so nearly exhausted, however, that she had to put into North Sydney and there procure enough fuel to take her to Halifax. It was this circumstance, coupled with the captain's ignorance of the coast and his gross negligence in failing to take soundings while proceeding along the shore in a dense fog, which led to the disaster.

The opinion of the Circuit Court of Appeals contains an exceptionally full and accurate discussion of the facts, as well as a clear statement of the legal principles involved. We believe that this opinion is the best answer which can be made to the petition, and the purpose of this brief is merely to supplement the opinion of the Circuit Court of Appeals in those particulars in which it is attacked by the petitioner.

POINT I.

The Circuit Court of Appeals was correct in its construction of Section 3 of the Harter Act.

The principles of law applicable to the facts of this case are clear and well-settled. A shipowner cannot exempt himself from liability for a negligent stranding, excepting by compliance with the terms of the Harter Act. This principle has frequently been stated by this Court. Thus, in the case of *The Jason,* 225 U. S. 32, this Court said, at page 49:

> "Prior to the Harter Act it was established that a common carrier by sea could

> not by any agreement in the bill of lading exempt himself from responding to the owner of cargo for damages arising from the negligence of the master or crew of the vessel. *Liverpool & G. W. Steam Co.* v. *Phenix Ins. Co.*, 129 U. S. 397, 438; following *New York Central Railroad Co.* v. *Lockwood*, 17 Wall. 357."

Accordingly, unless the shipowner can show affirmatively that he has used due diligence, as required by the Harter Act, he can have no exemption, either contractual or statutory, in respect of losses due to negligent navigation.

The Harter Act (Act of February 13, 1893), provides as follows (Section 3):

> "That, if the owner of any vessel transporting merchandise or property to or from any port in the United States of America shall exercise due diligence to make the said vessel in all respects seaworthy and properly manned, equipped and supplied, neither the vessel, her owner or owners, agent or charterers, shall become or be held responsible for damages or loss resulting from faults or errors in navigation or in the management of said vessel," etc.

In the case of *International Navigation Company* v. *Farr & Bailey Mfg. Co.*, 181 U. S. 218, this Court said, at page 225:

> "We do not think that a shipowner exercises due diligence within the meaning of the act by merely furnishing proper structure and equipment, for the diligence required is diligence to make the ship *in all respects* seaworthy, and that, in our judgment, means due diligence on the part of all the owners' servants in the use of the equipment before the commencement of the voyage and until it is actually commenced."

We call the Court's attention particularly to the fact that the italics in the foregoing quotation are not our own, but appear in the original opinion.

See also:

The Southwark, 191 U. S. 1, at p. 16.

In the later case of *The Wilderoft*, 201 U. S. 378, at pages 388, 389, this Court said:

> "To permit a cargo of sugar to be injured by the introduction of fresh water in the manner shown, but for the provisions of this act, would have made a case of clear liability against the owner, and where the statute has given immunity against such loss by reason of error in navigation or management, it does so upon the distinct condition that the owner shall show that the vessel was *in all respects* seaworthy and properly manned, equipped and supplied for the voyage; or, if this cannot be established, that he has used due diligence to obtain this end. The discharge of this duty is not left to any presumption in the absence of proof. It is the condition precedent, compliance with which is required of the vessel owner in order to give him the benefit of the immunity afforded by the act. * * * It is only when he has discharged the burden which the law imposes upon him, and shown that he has furnished a vessel, fit and seaworthy, or has used due diligence to that end, that the law relieves him of the liability which he would otherwise incur." (Italics ours.)

The foregoing authorities show clearly that there need be no causal connection between the lack of due diligence and the subsequent negli-

gence. An even clearer statement to that effect is contained in a later portion of the opinion in the case of *International Navigation Company* v. *Farr & Bailey Manufacturing Company, supra,* where this Court said (at p. 226):

> *"We repeat that even if the loss occur through fault or error in management, the exemption cannot be availed of unless the vessel was seaworthy when she sailed, or due diligence to make her so had been exercised, and it is for the owner to establish the existence of one or the other of these conditions."* (Italics ours.)

It was suggested in the Court below that this language was mere dictum, but we submit that this is not the case. One of the points made on behalf of the carrier in the *Farr & Bailey* case was that the loss was due to negligence of the crew; so that the foregoing language was an essential part of the decision. But even if the language quoted were dictum, it has stood unchallenged as a correct statement of the law for nearly twenty-five years. Moreover, in *The Wildcroft, supra,* this Court, although affirming the decision of the Circuit Court of Appeals, deemed it necessary to correct the erroneous interpretation of the Harter Act embodied in the opinion of the lower Court (201 U. S. at p. 388). We submit that a statement of the law made under such circumstances is not to be lightly disregarded.

There is no decision either of this Court or of any of the lower courts which is contrary to the rule laid down in the above quotations.

The petitioner refers repeatedly to the case of

the *Turret Crown*. (275 Fed. 961; reversed 297 Fed. 766, reargument denied January 15, 1924, petition for certiorari denied 264 U. S. 591. Same case, 284 Fed. 439.) In that case the vessel was unseaworthy in respect both of her steering gear and her bottom tanks. Judge Ward, in the District Court, held that the owners used due diligence as to the bottom tanks, but not as to the steering gear. As the bottom tanks leaked in heavy (although not extraordinary) weather, and as Judge Ward found that the defective steering gear did not contribute to the bottom damage, he held that the owners were not liable.

It was this part of Judge Ward's opinion which the Circuit Court of Appeals for the Fourth Circuit was "disposed" to accept (Petitioner's Brief, pp. 28, 29).

This decision, however, was reversed by the Circuit Court of Appeals for the Second Circuit because it found that the unseaworthy condition of the steering gear contributed to the leakage of the fuel tanks.

Assuming the facts to be as found by Judge Ward, his decision was correct, because the bottom damage did not result from any negligence of the crew, but from a latent defect not discoverable by due diligence. Failure to use due diligence to make the ship seaworthy does not render the carrier an insurer, but merely deprives him of any benefit under the third section of the Harter Act. If damage results from latent defects (not discoverable by due diligence) and/or from heavy weather, the carrier does not need to rely upon the Harter Act; but if, as in this case,

damage results from negligence in navigation, the carrier's only protection is the third section of the Harter Act, and this he cannot avail himself of unless he has used due diligence.

Put in another way, the situation is that a carrier, even at common law, could validly exempt himself from liability for latent defects not discoverable by due diligence; but he could not validly exempt himself from liability for negligence of his servants. It was only after the Harter Act that the shipowner could obtain any exemption in respect of his servants' negligence; and this exemption is strictly conditioned on his having used due diligence to make the ship seaworthy.

Petitioner's only excuse for citing the *Turret Crown* in this connection is a parenthetical remark by Judge Ward, quoted on page 27 of the petitioner's brief. It consists of the following sentence, which is the only reference in Judge Ward's opinion to the point under discussion:

> "If forcing the steamer into the sea, whether a head sea or a following sea, at a speed sufficient to give steerageway, did contribute to the bottom damage, it was an error in navigation and management of the vessel, for which the claimant is excused by the Harter Act" (p. 360).

The point covered by this sentence was not arguged before Judge Ward and it is clear from his language that this point was not an essential part of his decision. Certainly, in view of the fact that the case was reversed by the Circuit Court of Appeals, Judge Ward's incidental refer-

ence to the Harter Act cannot stand as an authority.

The case of the *R. P. Fitzgerald,* to which the petitioner refers, has no bearing whatever on the present case. The vessel was held liable and the part of a sentence which the petitioner quotes from the opinion is not entitled to rank even as a dictum.

Cases arising under the Act of 1851 (U. S. Comp. Stat. 8021, Rev. Stat. 4283) can have no possible bearing on the interpretation of the Harter Act. The Act of 1851 provides as follows:

> "Sec. 4283. (*Liability of owner not to exceed his interest.*) The liability of the owner of any vessel, for any embezzlement, loss, or destruction, by any person, of any property, goods or merchandise, shipped or put on board of such vessel, or for any loss, damage, or injury by collision, or for any act, matter, or thing, loss, damage, or forfeiture, done, occasioned, or incurred without the privity, or knowledge of such owner or owners, shall in no case exceed the amount or value of the interest of such owner in such vessel and her freight then pending."

It is clear from the language of this statute that the shipowner only loses his right of limitation by reason of his privity with the particular damage or loss claimed. The fact that he is privy to some defect or unseaworthiness having no bearing on the loss or damage is immaterial. The Harter Act, however, is framed on an entirely different theory. As this Court has repeatedly

and clearly pointed out, the exemption which it grants is strictly conditioned on the use of due diligence to make the vessel seaworthy.

The very structure of the third section of the Harter Act clearly indicates that there is no causal connection contemplated between the condition and the exemption. There will rarely be any connection between unseaworthiness and negligence in navigation; and yet due diligence to make the ship seaworthy is made the condition of exemption in respect of negligent navigation.

In closing under this head, we wish to refer again to the facts mentioned at the beginning of this brief, which clearly establish that there was in fact a causal relation between the unseaworthiness of the *Willdomino* and the stranding which caused the damage to libellants' cargo. Even the petitioner does not suggest that the unseaworthiness must be the proximate cause of the loss. Such a suggestion would involve a too flagrant disregard of the Harter Act. The petitioner's argument is that there must be a causal connection, and such a connection is clearly established in this case. The facts of the present case are that a shipowner deliberately sends his vessel to sea with insufficient fuel and, in consequence, it becomes necessary for her to skirt a dangerous and unfamiliar coast while proceeding from one port to another in search of fuel; while so proceeding, the vessel strands through the negligence of her navigators. To permit the shipowner to have the benefit of the third section of the Harter Act under such circumstances would be to ignore the plain language and the clear intent of that section.

POINT II.

The evidence fully sustained the finding of the Circuit Court of Appeals that the *Willdomino* committed an unjustifiable deviation by putting into North Sydney.

The decision of the Circuit Court of Appeals that the *Willdomino* was guilty of an unjustifiable deviation was based in part upon a finding that the owner's purpose in sending her there was to obtain bunkers for a subsequent voyage. This finding was fully justified by the evidence.

The claimant's own testimony shows that one of the principal reasons, if not the controlling reason, for having the vessel coal at North Sydney, was that there was difficulty, at this time, in obtaining bunkers for foreign vessels in American ports. The witness Williams, President of the petitioner, refers to this point repeatedly. He testified as follows:

> "Q. But did you give your master standing orders to coal at Sydney? A. I don't know as he had standing orders. We have made it a sort of practice to coal at North Sydney; as I recall it, along about that period we were having great difficulty in getting ship's bunkers on the Atlantic Coast of the United States, as you know in those days there were many embargoes on coal, and so on" (fols. 213-4).

He repeated this same statement in varying forms at least half a dozen times (See, for ex-

ample, fols. 221, 222, 705, 2562-3, 2573, 2576-7). Indeed, this point was so thoroughly impressed on everybody at the trial that the learned District Judge embodied it in his opinion, as follows:

> "The *Wildomino* was a British ship and at the time in question there were restrictions upon the supplying of bunkers to foreign ships on the Atlantic coast of the United States. The claimant had been obtaining its bunkers at Sydney and Halifax" (fol. 4136).

Curiously enough, both the claimant and the learned District Judge appeared to have overlooked the fact that the difficulty of obtaining bunkers in American ports had nothing to do with the westward voyage. Any embargo or coal shortage in the United States would be material only in connection with the vessel's next outward voyage, with which these libellants had no concern. The importance of this point appears to have dawned upon the claimant in the later stages of the trial. Early in the trial the witness Williams, President of the claimant company, testified as follows:

> "Q. Did you anticipate that when the vessel sailed from Ponta Delgada that she would go to Sydney and there take on approximately 1,400 tons of coal? A. No. We may have given him orders to proceed to the nearest coal port, which would have been North Sydney from Ponta Delgada.
>
> Q. If he could have gotten it there, was it the duty of the master when he got to Sydney to fill up his bunkers with coal there?
>
> Mr. Sprague: I object to that ques-

tion as to what the duty of the master was.

The Court: I will permit it.

A. *It might be considered his duty, but since we were able to get in touch with North Sydney we would have given the instructions*" (fols. 702-3).

Near the end of the trial he evidently realized the danger of even this very guarded admission, for he qualified this testimony as far as it was possible for him to do, in view of what he had already said. His later testimony was as follows:

"Q. When you sent this cable to your master directing him to go to Sydney, didn't you intend that he should at North Sydney take on bunkers for the return trip to Europe? A. No, sir. *We hadn't any voyage fixed.*

Q. Well, for the next trip that this vessel should make to sea? A. No, sir.

Q. You didn't intend that he should take on enough coal to go to sea again? A. *No, sir, hadn't any next voyage in mind.*

Q. Did you intend that he should take on enough coal at North Sydney to coal some other ship of yours from an Atlantic port to sail? A. No, sir.

Q. Now, that is exactly what the *Willdomino* had done on the preceding trip, wasn't it? A. *After we arrived at North Sydney, we did that, yes*" (fols. 2584-5).

We have italicized the portions of the witness Williams' testimony which seem to us to show clearly his purpose to evade the issue and take refuge in that fact that no orders had actually been given to the *Willdomino* to fill her bunkers at North Sydney, and that the vessel's next voyage

had not yet been actually fixed. We submit that it is perfectly plain from his testimony that the whole purpose of sending the vessel in to North Sydney was to procure bunkers for her next voyage from the United States, and that instructions to this effect, although they had not yet been actually given, would certainly have been given when the vessel reached North Sydney, if it had not been for the labor troubles which existed there. These troubles made it necessary to divert the vessel to Halifax, where the bunkers would undoubtedly have been filled, but for the stranding. If this were not so, all of Williams' testimony about the difficulty of obtaining bunkers in American ports would be meaningless.

Once it is established that the purpose of going to North Sydney was to procure bunkers for the next voyage, the voyage to that port becomes an unjustified deviation.

In the first place, it is settled that even the wide liberties granted by the printed clauses in claimant's bill of lading will be construed as applying only to matters connected with the voyage for which the bill of lading is issued. In *Austrian, etc., Co.* v. *Calafiore,* 194 Fed. Rep. 377, a steamer which had the same wide liberties which the *Willdomino* would have had, if her printed bills of lading had not been modified by the written clause, was proceeding from Mediterranean ports to New Orleans. She stopped at Tampa to take on some cargo which was to be carried back to the Mediterranean on her return voyage. The Circuit Court of Appeals for the 5th Circuit said that, notwithstanding the wide

liberties granted by the bill of lading, the ship was guilty of an unjustified deviation because the stop at Tampa had nothing to do with the westward voyage. In the course of its opinion, the Court said (at p. 378):

> "The reservation in the bill of lading on which the claimant relies to relieve itself from liability for delay and detention at Tampa must be construed with reference to the voyage in contemplation of the shipowner and the shippers at the time the bill of lading was issued, and therefore be restricted in allowing deviation to the business and necessities of the ship pertaining to that voyage. *See Swift* v. *Furness, Withy & Co.*, 87 Fed. 345; *Liverpool Steamship Co.* v. *Phoenix Ins. Co.*, 129 U. S. 441, 9 Sup. Ct. 469, 32 L. Ed. 788; *Pacific Coast Co.* v. *Yukon Independent Transport Co.*, 155 Fed. 35, 83 C. C. A. 625; *Leduc* v. *Wood*, 20 Q. B. D. 482; *Glynn* v. *Margretson* (Appeal Cases), L. R. 1893, p. 355."

This principle is precisely applicable to the present case.

The decision in the present case, however, is not dependent on the general principle laid down in the *Calafiore* case, and in the cases there cited. Although the bill of lading in the present case contained a printed clause giving very wide liberties of deviation, these liberties were restricted by a clause added in handwriting, which read as follows:

> "Filling up only in ports on the way westward of (sic) New York" (Petition, p. 6).

It is undisputed, and the District Court found,

that the word "of," in this clause, should read "to." (See remarks of claimant's counsel, fol. 2476; testimony of Gurge, fols. 2520-1; Opinion, fol. 4133.)

Reading this clause in connection with the printed clause "the ship has liberty of filling up and/or bunkering at any port or ports in or out of the way" (Petition, p. 6), it is clear that although the ship retained wide liberties in respect of bunkering, she surrendered, by special stipulation, the privilege of taking on additional cargo at ports which were not along the direct route to New York. Clearly, coal which is not intended to be used on the pending voyage cannot properly be referred to as "bunkers"; so far as the pending voyage is concerned, such coal is a part of the cargo. Accordingly, in taking on coal for her next voyage, the *Willdomino* would not have been bunkering, but would have been "filling up" within the meaning of the written clause of the bills of lading. This involved a clear violation of the terms of the bills of lading and constituted a wholly unjustifiable deviation from the voyage contracted for.

The distinction between a deviation and a mere intention to deviate clearly has no bearing on the present case. The deviation in this case was fully consummated when the *Willdomino* put into Sydney. No case has ever suggested that the purpose for which a vessel puts into a port is not to be considered in determining whether her calling at such port is a deviation. Calling at a port for an improper purpose is a deviation, and the deviation is consummated the moment the vessel changes her course for the purpose of

proceeding to such port, irrespective of whether or not the improper purpose is ever in fact carried out. The decision of the Circuit Court of Appeals on this point is clearly correct.

The closing argument for the petitioner under this head is scarcely worthy of a reply. It is, in substance, that a shipowner can evade the law with respect to deviation by doing what the Circuit Court of Appeals has found that this petitioner did, *i. e.*, by deliberately sending his vessel to sea with insufficient fuel so that she will have to put into a port to which she would not otherwise be justified in proceeding. The case of *Kish* v. *Taylor* is not authority for any such doctrine. In that case the cargo was not damaged; and there was no suggestion that the owners designedly sent the vessel to sea in an unseaworthy condition. Furthermore, the effect of *Kish* v. *Taylor* has been very greatly limited by the decision of the House of Lords in the later case of *Atlantic Shipping & Trading Co.* v. *Dreyfus,* L. R. (1922), 2 A. C. 250.

The Court will, of course, bear in mind that an unjustifiable deviation renders the interpretation of the Harter Act immaterial; for even if a vessel is seaworthy, her owner becomes liable, as at common law, for damage to cargo, if the vessel deviates from the voyage contracted for without lawful excuse, *The St. Johns,* 263 U. S. 103; *The Sarnia,* 278 Fed. Rep. 459; *Niles-Bement-Pond Co.* v. *Dampkiesaktieselskabet Balto,* 282 Fed. Rep. 235.

POINT III.

The finding of the Circuit Court of Appeals that libellants' cargo was not delivered in specie is fully supported by the evidence.

The third point of petitioner's brief relates entirely to a question of fact. The Circuit Court of Appeals said of libellants' cargo:

> "We think the record establishes conclusively that it was no longer in specie."

There was ample evidence to sustain this finding (Haffey, pp. 677 to 679; Liesegang, p. 198; Martin, p. 134; Rodman, p. 255).

POINT IV.

It is respectfully submitted that the writ of certiorari should be denied.

September 30, 1924.

Respectfully submitted,

BIGHAM, ENGLAR & JONES,
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IN THE

Supreme Court of the United States.

OCTOBER TERM, 1925—No. 165.

Steamship "WILLDOMINO", Her Engines, Boilers, Etc.,
Petitioner (Respondent Below),

—against—

CITRO CHEMICAL COMPANY OF AMERICA,
Respondent (Libellant Below).

OCTOBER TERM, 1925—No. 166.

Steamship "WILLDOMINO", Her Engines, Boilers, Etc.,
Petitioner (Respondent Below),

—against—

CHARLES PFIZER & COMPANY, INC.,
Respondent (Libellant Below).

OCTOBER TERM, 1925—No. 167.

CONVOY STEAMSHIP COMPANY, LTD., Owner of the Steamship "Willdomino", Her Engines, Boilers, Etc.,
Petitioner (Libellant Below),

—against—

CHARLES PFIZER & COMPANY, INC.,
Respondent (Respondent Below).

BRIEF FOR RESPONDENTS.

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Counsel for Respondents.

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POINT III.

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American English Encyc. of Law 58, 66

Carver on Carriage of Goods by Sea, 6th Ed. 58, 66
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IN THE

Supreme Court of the United States.

OCTOBER TERM, 1925—No. 165.

Steamship "WILLDOMINO", Her Engines, Boilers, Etc.,
Petitioner (Respondent Below),

—against—

CITRO CHEMICAL COMPANY OF AMERICA,
Respondent (Libellant Below).

OCTOBER TERM, 1925—No. 166.

Steamship "WILLDOMINO", Her Engines, Boilers, Etc.,
Petitioner (Respondent Below),

—against—

CHARLES PFIZER & COMPANY, INC.,
Respondent (Libellant Below).

OCTOBER TERM, 1925—No. 167.

CONVOY STEAMSHIP COMPANY, LTD., Owner of the Steamship "Willdomino", Her Engines, Boilers, Etc.,
Petitioner (Libellant Below),

—against—

CHARLES PFIZER & COMPANY, INC.,
Respondent (Respondent Below).

BRIEF FOR RESPONDENTS.

Statement.

The three cases above entitled are here on writs of *certiorari* to the United States Circuit Court of Appeals

for the Third Circuit. The first and second cases were suits by consignees of cargo against the Steamship *Willdomino* for damage to shipments of citrate of lime, in which they were respectively interested. The third case was a suit by the owners of the steamer for freight on one of these shipments. The District Court dismissed the libel for cargo damage and entered a decree in favor of the owners of the vessel in their suit for freight. The Circuit Court of Appeals reversed the decrees in all three cases.

The opinion of the Circuit Court of Appeals is reported under the title *The Willdomino*, in 300 Fed. Rep. 5 (see also, R. 1425-1440).

The opinion of the District Court is not officially reported but is set forth in the record (R. 1360-1376).

Statement of the Facts.

The facts of the case are fully stated in the opinion of the Circuit Court of Appeals. The statement of facts in the petitioner's brief is incomplete, and for this reason as well as by reason of the petitioner's complete change of position in this Court, it seems necessary for the respondents to state the facts briefly before taking up the questions of law involved. We assume that the writ of certiorari was granted for the purpose of reviewing certain questions of law presented in the petition; but the petitioner's brief attacks, in a number of particulars, the facts found by the Circuit Court of Appeals. The petitioner has so interwoven these questions of fact with the questions of law involved as to make it very difficult, if not impossible, to separate the two for purposes of argument.

The *Willdomino* is a British steamship, 427 feet in

length, 54 feet beam, 27.5 feet depth of hold, gross registered tonnage 5,757.8; net registered tonnage 4,173.4; her deadweight capacity was 8,800 tons (R. 403, 404, 772)*. Her propelling machinery consisted of a turbine engine made up of a high pressure and low pressure ahead turbine and a high pressure and low pressure astern turbine. She was built at Vancouver, B. C., in 1919.

In June, 1920, 503 casks of citrate of lime were laden on the Steamship *Willdomino* at Messina, Italy, consigned to The Citro Chemical Company of America and Charles Pfizer & Company, Inc. The Citro Chemical Company was owner and consignee of 168 casks and the Pfizer Company was the owner and consignee of 335 casks. All of these casks were stowed in lower No. 1 hold. Although the bill of lading in each case was dated June 10, 1920, and the ship sailed from Messina for New York on June 11, 1920, the citrate of lime was not tendered to the libellants in New York until October 2, 1920, when it was in such a damaged condition as to be practically worthless. The libellants refused the cargo when it was thus tendered, and abandoned it to the ship; and the 503 casks were sold by the owners of the steamship for $3,000.00, which was less than the freight on the shipments.

The bills of lading contained printed clauses giving the vessel very wide liberty to deviate, but those clauses were modified by a written clause reading as follows:

> "Filling up only in ports on the way Westwards of New York" (Claimant's Exhibits A and B, R. 916, 917).

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*The transcript of Record in these cases, comprises two volumes. Volume I (pp. 1 to 872, fols. 1 to 2616) contains all pleadings and testimony. Volume II (pp. 873 to 1461, fols. 2617 to 4266) contains all Exhibits, Opinions, Decrees and Appeal Papers.

It is undisputed, and the District Court found, that the word "of", in this clause, should read "to" (see remarks of Claimant's counsel (R. 826), testimony of Gurge (R. 840, 841), Opinion (R. 1378).

The *Willdomino* sailed from Messina for Gibraltar on June 11th, and arrived there on June 16th. At Gibraltar the *Willdomino* received on board 400 tons of bunker coal (Donaldson, R. 446). This amount of coal added to what remained in her bunkers made a total of 756 tons of bunker coal on board when she sailed from Gibraltar on June 17th. (Engineer's log, Claimant's Exhibit S, R. 1195). It is not disputed that Gibraltar is a proper and customary coaling port for vessels bound from Mediterranean ports to New York. From Gibraltar, however, the vessel proceeded northward and eastward to Lisbon, to take on board additional cargo. She arrived at Lisbon on June 18th. In this port the second, third and fifth engineers were signed off on account of illness and two Portuguese engineers were signed on. The vessel left Lisbon on June 24th. Shortly after leaving Lisbon, trouble developed with the oil pumps which were an essential part of her turbine engine. On the first occasion the pumps were repaired before any damage to the engine developed. On the second occasion the trouble with the pumps was not detected in time, with the result that the high pressure turbine was completely disabled by lack of lubrication. The high pressure ahead turbine was then blanked off and the vessel proceeded to Ponta Delgada in the Azores, where she arrived on July 3rd. Certain temporary repairs were effected at Ponta Delgada, but it was impossible there to repair the high pressure turbine, so it was decided to complete the voyage by the use of the low pressure tur-

bine alone. Some 250 tons of coal were taken aboard at Ponta Delgada, and the vessel left there on July 10th with a total of 629 tons in her bunkers.

The Circuit Court of Appeals found that the vessel left both Lisbon and Ponta Delgada with a supply of coal which was inadequate for her voyage to New York.

The question what the *Willdomino's* voyage was intended to be after leaving Ponta Delgada, has been the subject of more discussion and argument than any other question in the case. In both of the lower courts the petitioner argued that the *Willdomino* left Ponta Delgada with the intention of proceeding direct to New York. In this Court the petitioner reverses its position and argues that it was intended at all times that the *Willdomino* should proceed from Ponta Delgada to North Sydney, Cape Breton. Indeed, one of the principal errors assigned in this Court is that the Circuit Court of Appeals decided, in accordance with petitioner's argument in that Court, that the *Willdomino*, on leaving Ponta Delgada, sailed for New York. Passing for the moment this vital point, which will be fully discussed later, the fact is, as established by the uncontradicted evidence of the master and chief engineer of the steamer, that she left Ponta Delgada on the course for New York but, after a few days, changed her course for North Sydney. While still about a day out from North Sydney, the vessel received a wireless message from her owners to go to Halifax instead of North Sydney (Beeby, R. 348, 353). At this time, however, the vessel had not coal enough on board to reach Halifax, so she put into North Sydney, where she arrived on July 22nd with only 62 tons of coal on board (Beeby, R. 318). On account of labor troubles, it was only possible to obtain 62 tons additional (Beeby, R. 318) so that the

vessel, after using 15 tons in the harbor, left North Sydney with only 108 tons, 10 cwt. aboard (R. 1253). The vessel sailed from Sydney shortly after 1 o'clock on July 23rd, bound for Halifax. During the evening of that day, a dense fog set in, which continued throughout the night. Soundings were taken only once during the night, at 4:30 A. M., at which time they showed 91 fathoms of water. At 6:30 A. M., while the vessel was still in a dense fog, she struck bottom about seven miles off Gannet Rock, on a well-known and charted reef (Beeby, R. 291, 319). The vessel was backed off the reef by means of her own engines but she was so far down by the head that she could not be steered. She subsequently reached Halifax on July 27th, with the assistance of a salvage tug which was summoned by wireless, and which first convoyed her and later towed her, when the *Willdomino's* coal supply was nearing exhaustion. At all times after the stranding, the vessel's forepeak and most of No. 1 hold were full of water.

At Halifax the vessel was examined by various surveyors, and the bottom of the vessel was inspected by a diver. Thereafter, the bulkhead between the No. 1 hold and No. 2 hold was strengthened, 400 tons of ballast were put on the stern, for the purpose of raising the vessel's bow, and she was towed to New York, where she arrived on August 7th.

Although the *Willdomino* arrived in New York on August 7th, the petitioner did not tender delivery of libellants' cargo until October 2, 1920, nearly two months after her arrival in port, at which time the cargo was practically worthless.

Citrate of lime is citric acid made by or under the

direct supervision of the Italian Government, and shipped in lime as a carrier, in heavy wooden casks. Each cask was worth about $500, making the total value of the two shipments about $250,000.

The Issues.

Certain of the issues which were contested below are not raised on this appeal.

The petitioner concedes that the stranding of the *Willdomino* was due to negligent navigation (Petitioner's Brief, p. 12).

The petitioner does not allege any error in the decision of the Circuit Court of Appeals that the cargo was not delivered in specie and, therefore, no freight was due (see "Specifications of Error Intended to be Urged", Petitioner's Brief, pp. 9 and 10).

Accordingly, the issues presented in this Court are as follows:

I. Whether the petitioner complied with the conditions laid down in the 3rd Section of the Harter Act (Act of February 13th, 1893); and if not, whether the petitioner is, nevertheless, entitled to the protection of that Section. Respondents contend that the unseaworthiness of the vessel did in fact contribute to the stranding; but they contend further that this fact is immaterial because the condition laid down at the beginning of Section 3 is an absolute condition and is not dependent on any causal connection between lack of due diligence and subsequent loss.

II. On what voyage the *Willdomino* left Ponta Del-

gada and whether this voyage constituted a deviation from the voyage contracted for.

III. Whether the petitioner took reasonable care of the damaged merchandise after the stranding.

POINT I.

The Circuit Court of Appeals found that it was the deliberate purpose of the petitioner not to take on board sufficient coal to carry the vessel to New York, but only barely enough to carry her to North Sydney; and to conceal this intent and put into North Sydney as a port of refuge, under a necessity created by the petitioner itself. The Court found that the vessel was, therefore, unseaworthy, and that this unseaworthiness resulted directly from the owner's cable instructions. These findings are fully sustained by the evidence.

We quote as follows from the opinion of the Circuit Court of Appeals (R. 1438-9):

> "That it was the deliberate and continuing purpose not to take on board enough coal to carry the vessel to New York but only barely enough to carry her to North Sydney is made certain almost to the point of demonstration by the contents of the cablegram sent by the owner to the master at Gibraltar and the three consecutive failures at Gibraltar, at Lisbon and at Ponta Delgada to take on board an adequate and proper amount of fuel for a voyage to New York. Those facts permit no inference other than that it was the intention of the claimant and of the master to have the vessel put in at Sydney. That it was their purpose

> to conceal this intent and to put in to Sydney as a port of refuge (though under a necessity created by themselves) is shown by the vessel's clearing at Lisbon for New York, the statements of the log books that she was proceeding on a voyage to New York, by the subsequent clearance of the vessel at Ponta Delgada for New York and the entries in the engineer's log book that she was proceeding towards New York, notwithstanding the fact that the vessel did not take on board at Ponta Delgada enough coal to reach New York even had the vessel made, under propulsion by the low pressure turbine alone, the average rate of speed which she had made during the five days out from Lisbon before the high pressure turbine was blanked off."

The conclusions stated in the above quotation, of course, are not to be reached without careful consideration; but we respectfully submit that no other conclusion is possible on the evidence.

The Petitioner's Change of Position in This Court.

Both the master and chief engineer of the vessel testified that when they cleared from Lisbon and Ponta Delgada, they intended to make New York without stopping at any other port, except in an emergency. Although this testimony was demonstrably false, in view of the amount of fuel taken on at these ports, the petitioner contended in both of the lower courts that the vessel was not intended to stop at North Sydney and did so only in an emergency, which arose during the voyage. The position taken by the petitioner in the Circuit Court of Appeals appears from the opinion of

that Court. We quote as follows from that opinion (R. 1432, 1433 and 1439):

> "That the *terminus a quo* of the voyage in question was Lisbon is obvious. That the *terminus ad quem* was New York cannot be made clearer than by quoting from claimant's brief, page 44, where it is said: 'She cleared for New York and both logs indicate that the voyage was from Lisbon to New York'.
>
> * * * * * * * *
>
> "The claimant asserts that the insufficiency of the fuel to reach New York was due to unanticipated retarded speed brought about by head winds, currents and the slip of the propeller.
>
> * * * * * * * *
>
> "The claimant has met this array of convincing circumstantial facts only with the contention that the estimates of coal made at the several ports were made in good faith to carry the vessel to the port of New York, that the master in taking coal aboard was not at all governed by the directions of the owner embodied in the cablegram, that the vessel changed her course towards Sydney only because it had then become demonstrated that the coal then in her bunkers was insufficient to take her into New York, * * *."

In view of the above quotation by the Circuit Court of Appeals from the petitioner's brief in that Court, we take the liberty of quoting another passage from the same brief (p. 46):

> "The vessel was cleared from Ponta Delgada for New York on July 10th, expecting to go directly to New York but with the idea in mind

> that if they were held up by poor coal or by bad weather or the influence of the current that they could go into Sydney for additional bunkers."

In the District Court the petitioner argued this point so successfully that that Court not only held that the *Willdomino* was intended to proceed directly from Ponta Delgada to New York, but held further that the officers of the vessel took on a supply of coal which was, in their judgment, sufficient for the voyage (R. 1375).

As the Circuit Court of Appeals found, the District Court was clearly in error on this point, in view of the petitioner's own testimony as to the amount of coal taken on at Lisbon and Ponta Delgada.

Having been defeated in its attempt to treat North Sydney as a port of refuge, the petitioner now blandly abandons that theory and insists that it was never intended that the *Willdomino* should attempt to reach New York, but that she was at all times bound for North Sydney as her next port.

The petitioner's complete reversal of position suggests some rather interesting questions:

To what extent may a party charge a court with an error into which it was led by his own argument?

To what extent can the petitioner repudiate the sworn evidence of its master and chief engineer, which it offered and relied upon in the lower courts?

The Coal Supply of the Willdomino.

For a proper consideration of this phase of the case, it is necessary to discuss the evidence in considerable detail.

It is undisputed that a vessel crossing the North

Atlantic should carry from 20% to 25% more fuel than she is expected to use under normal conditions. Libellants' witnesses Gurge and Jeffcott testified to this effect (R. 844, 798, 799) and the witness Williams, President of the petitioner, confirmed their testimony (R. 865). The testimony of the Chief Engineer of the *Willdomino* is to the same effect (R. 478). In view of this testimony, we take it there can be no question that a vessel which sails with less than this margin of safety is unseaworthy. This rule has been repeatedly applied by the courts.

A case precisely in point is *Hurlbut* v. *Turnure*, 76 Fed. Rep. 587. The steamer *Dunedin* sailed from Cienfuegos, Cuba, on October 3, 1891, bound for New York with a cargo of sugar. Ordinarily, this voyage required about 8 days. Her consumption of coal was 12 tons per day, and upon leaving Cienfuegos she had about 115 tons—or a supply for 9½ days. On the second day out, she met head winds and seas and on the 9th and 10th a northeast gale. On the latter part of the voyage, sugar was used as fuel. She was 12 days, in reaching Newport News, still one day's sail from New York.

The bill of lading contained a clause authorizing the vessel to "call at any port or ports for whatever purpose."

This clause was relied upon by the carrier in support of its action to recover the defendant's share of a general average assessment for ship's materials and cargo consumed as fuel, and also for port of refuge expenses in putting into Newport News for additional coal.

On this point, Judge Addison Brown said:

> "I do not think this clause has any material bearing upon the present question. It has been

repeatedly construed and adjudged not to authorize any departure to ports away from the ordinary course of the voyage, or for any purpose disconnected with the voyage. In other words, it is to receive a reasonable construction: a construction not inconsistent with the well settled right of the shipper to have the specified voyage pursued in the usual manner, without unnecessary delays, or the increased risks incident to such delays. It authorizes calls for reasonable cause or for necessity arising upon the voyage. But it is not reasonable, and the clause cannot be deemed intended, to release the ship from the performance of any of her ordinary duties in preparing for the voyage, or to authorize the ship to sail voluntarily from the port of departure with a short supply of coal, and thus deliberately to create a necessity for calling at intermediate ports not mentioned in the bill of lading, and contrary to the customary course of the voyage" (p. 590).

This decision was affirmed by the Circuit Court of Appeals for the Second Circuit, 81 Fed. Rep. 208.

See also *British & Foreign Marine Ins. Co.* v. *Kilgour S. S. Co.*, 184 Fed. Rep. 174, and *The Abbazia*, 127 Fed. Rep. 495.

On June 15th, while the *Willdomino* lay at Gibraltar, the master received the following cable from the petitioner:

"YOUR COAL REQUIREMENTS EXCESSIVE COST OF BUNKERS GIBRALTAR VERY HIGH MAKE ACCURATE MEASUREMENT REMAINING BUNKERS IF NOT

ENOUGH TO MAKE NORTH SYDNEY TAKE ONLY ENOUGH TO REACH THERE CUT DOWN CONSUMPTION IN EVERY WAY IF FUEL RUNS SHORT REACHING COAST CUT OUT ONE BOILER" (Claimant's Exhibit F, R. 1090).

Respondents consider the sending of this cable one of the most important facts in the present case, and believe that its importance cannot be exaggerated. It is a direct invitation—indeed a positive command—to the master to violate the well-settled practice mentioned above. He was left no discretion to take sufficient coal to give him a 20% margin of safety, but was definitely ordered to "take only enough" coal to reach North Sydney, and "if fuel runs short reaching coast cut out one boiler".

Notwithstanding the cable above quoted, the master and chief engineer stoutly maintained in their testimony that they, in fact, sailed for New York, and merely had North Sydney in mind as a port which they might put into in case they ran short of coal.

In this connection we call attention to the testimony of Williams, president of the petitioner (R. 854), as follows:

> "Q. Now, what were the instructions that you had given your masters in regard to coaling of these British vessels? A. We had previously given instructions to our vessels coming out of the Mediterranean that *if necessary*, they put in to North Sydney for bunkers."

Taking this testimony in connection with the testimony of the master and chief engineer, and in connec-

tion also with the fact that the petitioner insisted in both of the lower courts that the testimony of the master and chief engineer was correct, there is no escape from the conclusion that the cable above quoted was intended by the petitioner, as it was understood by the master and chief engineer, to mean that the vessel was to sail for New York with only enough coal to reach North Sydney. In this connection it must be borne in mind that the cable instructs the master to "cut down consumption in every way" and refers to the possibility of fuel running short on reaching the coast. This certainly suggests that the vessel was to go just as far as she could with the coal supply on board.

Respondents concede that the natural inference from the cable above quoted is that the vessel should proceed direct to North Sydney. It must be borne in mind, however, that the master and chief engineer were acting in the light of previous experience with the petitioner, and with reference to previous instructions. In this connection we call attention to the following testimony of the master of the vessel:

> "Q. When you left Ponta Delgada did you have the port of Sydney in mind at all as a place that you might go to? A. Yes.
>
> Q. Why? A. My owners had instructed me at Gibraltar to bunker at North Sydney *if I found it necessary*" (Beeby, R. 361).

In view of the master's testimony, and the course which he actually followed, we submit that the Circuit Court of Appeals was fully justified in its conclusion that the cable sent to the master at Gibraltar actually

meant, in the light of previous instructions, that the vessel was to sail for New York with only sufficient coal to reach North Sydney.

We will now take up in detail the testimony on the issues above discussed. The master testified as follows:

> "Q. Your destination was New York, when did you change that ultimate destination and go to Sydney is what I want to know? A. About July 16th.
>
> Q. Then up to July 16 you had no intention of going to Sydney? A. I always had Sydney in the back of my head in case I was short of coal or anything happened to the ship, any engine defects or anything turning up.
>
> Q. But up to July 16, you might just as well have intended to go to Halifax as Sydney or any other as a port of refuge? A. Not for a port of refuge, for bunkers, Halifax, Sydney, or Lewisburg.
>
> Q. Any other port? A. Any other port for coal.
>
> Q. Who is it that decides the amount of coal to be taken on the voyage? A. The captain and the chief engineer.
>
> Q. In consultation? A. In consultation.
>
> Q. Did you have various consultations with the chief in regard to the voyage in question during the voyage? A. Yes.
>
> Q. At what time did you notify the chief that it was your orders that the vessel head for Sydney instead of New York? A. I don't notify the chief that we are heading for any particular port at all.
>
> Q. Who decides? A. I decide.
>
> Q. Then you don't tell the chief how to pre-

pare to put through this voyage? A. No, we decide, the chief tells me so much coal left, I work out what she is doing per day, come to the conclusion there might be a shortage, so considering for safety sake it was best to head for North Sydney and rebunker.

Q. When you left Ponta Delgada you and the chief had the intention of going to New York, did you not? A. *Make New York if possible*" (Beeby, R. 313, 314).

In considering the foregoing testimony, it must be borne in mind that this vessel had two distinct points of departure for New York, so far as fuel was concerned. She coaled at Gibraltar on the assumption that she would proceed at her normal speed with both turbines in operation. She coaled again at Ponta Delgada, knowing that she would have to make the voyage on the low pressure turbine alone, with greatly reduced speed and considerably increased coal consumption. The master's testimony shows, however, that the instructions which he received from the owners at Gibraltar were still in force when he sailed from Ponta Delgada. When asked why he had the port of Sydney in mind when he left Ponta Delgada, he said "my owners had instructed me at Gibraltar to bunker at North Sydney, if I found it necessary" (R. 361). Accordingly, the supply of coal taken on board both at Gibraltar and at Ponta Delgada must be considered in the light of the owners' instructions. It can be demonstrated mathematically that the steamer sailed from Gibraltar, from Lisbon and from Ponta Delgada with a wholly insufficient supply of coal to enable her to reach New York.

In dealing with the distances involved in this case, we will refer to Reed's Tables of Distances, which is a standard work of reference on the subject. Where the distance appears from testimony in the record, we will refer to this also.

The steamer left Gibraltar on June 17th, with 756 tons of coal (Engineer's Log, Claimant's Exhibit S, R. 1195). The voyage from Gibraltar to New York was to be made via Lisbon, and hence allowance must be made for the coal which would be used while proceeding to Lisbon, and while lying in port there. As nothing unusual is alleged to have occurred on the voyage to Lisbon, or while there, it may be assumed that the coal consumption actually recorded for this period was the same as was and should have been anticipated. The vessel actually left Lisbon on June 24th, with 651 tons of coal (Engineer's Log, R. 1203). The steaming distance from Lisbon to New York is 2905 miles (Jeffcott, R. 793; Reed's Table of Distances, p. 140).

On the vessel's previous voyage from Norfolk to Marseilles, she averaged about 8 knots per hour, and consumed upwards of 42 tons of coal per day. The testimony of libellants' witness, Jeffcott, to this effect was struck out (R. 794), apparently on the ground that, as these facts all appeared in the log books, which were in evidence, it was improper to permit the witness to testify to them (Cf., R. 791, 793). The purpose of the testimony, of course, was merely to save the time of the Court in making elaborate calculations from the records in the log books. Captain Jeffcott's statements, however, can readily be verified from the log books. The distance from Norfolk to Gibraltar is 3305 miles and from Gibraltar to Marseilles 693 miles,

making a total of 3998 miles (Reed's Tables of Distances, pp. 62 and 139; according to the log book, the distance actually traversed was 4020 miles—(R. 930 to 973. It appears from the deck log (Claimant's Exhibit E-2) that the vessel left Norfolk early on the morning of May 6th and anchored at Marseilles on the evening of May 27th—say 21½ days. It follows that the vessel's average speed was 186 miles per day, or 7¾ miles per hour. It appears from the engine room log (Claimant's Exhibit S, R. 1107 to 1277) that the vessel left Norfolk with 1677 tons of coal in her bunkers (R. 1115) and arrived at Marseilles with 766 tons (R. 1159) showing a consumption of 911 tons, or slightly more than 42 tons per day.

It appears from the deck and engine room logs (Claimant's Exhibits E-1 and S) that the voyage from Norfolk to Marseilles was uneventful and was prosecuted in better than average weather. Accordingly, there could be no possible reason for assuming that the vessel would make better speed on her westward voyage than she had made on her way to Marseilles. On the contrary, the Gulf Stream added about one-half knot per hour to her speed going east, and would have a corresponding effect in diminishing her speed coming west (Jeffcott, R. 795, 796). As the effect of the Gulf Stream would be to add one-half knot to the speed on the eastward voyage and retard the speed one-half knot on the westward voyage, it follows that the speed on the westward voyage would normally be about one knot less per hour than on the eastward voyage. We will give the petitioner the benefit of every doubt, however, and will make our calculations on the assumption that the vessel would have a speed of eight knots (instead of less than seven as should have been anticipated). At the rate of

8 knots per hour, the *Willdomino* would make the 2905 miles from Lisbon to New York in 15 days and 3 hours. In this period, at the rate of 42 tons per day, she would consume 635 tons of coal. Adding 20% additional as a margin of safety, in accordance with the custom mentioned above, we have a total of 762 tons, which the vessel should have had on board when she left Lisbon. As already stated, however, she left Lisbon with only 651 tons, which is only 16 tons more than she might be expected to consume if everything went well and she made better speed on the westward voyage, against the Gulf Stream, than she had made going eastward with the Gulf Stream in her favor. As a matter of fact, if we modify the calculations by cutting the steamer's speed down to 7¾ knots, which is the speed she actually made on her eastward voyage, it will be found that the coal to be consumed on the voyage from Lisbon to New York would have been 655 tons, or slightly more than the vessel had on board when she left Lisbon. It is unnecessary, however, to deal with minute fractions in this connection. The point is that the vessel left Lisbon with barely enough coal to reach New York under the most favorable circumstances, and without any margin of safety whatsoever. In the light of the testimony of the master of the ship and the president of the petitioner, we submit that this course was followed in direct obedience to the owner's instructions.

When the vessel left Ponta Delgada, however, her fuel supply was even more inadequate than when she left Lisbon; and the insufficiency of the supply at this time can be demonstrated even more readily and conclusively than in the case of her sailing from Lisbon.

At Ponta Delgada it was definitely decided that the steamer would complete her voyage on the low pressure turbine alone. This course had been followed on a previous voyage when the same chief engineer (Donaldson) was in charge of the machinery, and he was, therefore, in a position to judge accurately as to the speed which the vessel would make under these conditions. He testified as follows:

> "Q. And the function of the LP is to take what additional force there is out of this? A. Yes, the LP turbine will work at 1½ pounds pressure as long as you have good vacuum; we have got 6½ knots. The two voyages previous to that it was exactly the same way, broke down, the HP blanked off, came 4000 miles from St. Nazaire to Sydney, Portland, New York on the LP. When I got here that time these turbine experts came down and said—of course complimented me for getting the ship in, they said, what pressure did you use on the LP, I said 2½; they said too much altogether, 1½ is quite enough. I think then I made an average of 6¾ knots, this time I think my average was 6½, or something like that" (R. 460).

With respect to the additional coal taken on board at Ponta Delgada, the chief engineer testified as follows:

> "Q. How much coal did you take on board? A. 250 tons.
>
> Q. Were you restricted at all in taking your coal at Ponta Delgada, or could you have taken more if you wished to? A. Well, I think we could have got more, of course that is the captain, he goes ashore, I told him what was necessary, we

have a consultation what we think is necessary, then we come to the conclusion what is necessary and he goes ashore and buys it.

Q. Did you have that consultation? A. Yes.

Q. And you agreed on 250? A. Absolutely.

Q. In your opinion was that sufficient to take you to New York? A. Yes.

Q. Even going simply on the LP? A. Yes" (R. 464, 465).

"Q. From anywhere, generally speaking, when the high pressure is cut out you can only go on the low pressure, how many more tons a day is it reasonable to count on burning than when both turbines are running? A. Eight tons a day.

Q. So did you when you left Ponta Delgada, knowing that the low pressure was to be in operation alone, count on burning 50 tons a day, or 51? A. Well, 50 was the average consumption.

Q. Was the average that you did burn, or was the average you thought you would burn? A. Average that we did burn.

Q. And about 50 or 51 tons a day, that is about eight tons more than normally used, is in your opinion what you should have provided for under the circumstances, is that true? A. Yes" (R. 472).

On the same subject the master of the ship testified as follows:

"Q. You mean under ordinary circumstances —had your vessel been working all right? A. Yes; the weather all right, allowing for running on the LP, I took the chief engineer's estimate of the amount of coal she would burn per day running on the LP. On this we ordered 250 tons of coal.

Q. What was his estimate? A. Fifty tons, he thought about 50 tons a day, he hoped it would be less" (R. 317).

Accordingly, we have definite evidence from the petitioner's own witnesses, the master and chief engineer of the ship, that, when leaving Ponta Delgada, with the high pressure turbine blanked off, they expected the steamer to make about 6½ knots per hour, and consume 50 tons of coal per day. With these facts clearly in mind, they left Ponta Delgada with only 629 tons of coal on board (Engineer's log, Claimant's Exhibit S, R. 1229). The distance from Ponta Delgada to New York is 2,290 miles (Reed's Tables of Distances, p. 142—Jeffcott, R. 793). Captain Beeby gave this distance as 2,099 miles, but this was obviously an error, as appears from Libellants' Exhibit 17. On this exhibit, the distance from Fayal to New York is shown as 2,098 miles; but Fayal is nearly 200 miles west of the Island of St. Michael's where the port of Ponta Delgada is situated. Taking the correct distance of 2,290 miles, it is clear that the *Willdomino*, proceeding at a speed of 6½ miles per hour (or 156 miles per day) would require 14 days and 16 hours to make the voyage from Ponta Delgada to New York. As her fuel consumption was expected to be 50 tons per day, it is obvious that the vessel needed at least 732 tons to make the voyage; and in order to provide the usual 20% margin of safety she should have had at least 878 tons on board when leaving Ponta Delgada. On the contrary, as stated above, she had only 629 tons. In view of these facts, the learned District Court was clearly in error in stating (R. 1375) that "coal, in the judgment of the officers in charge, suffi-

cient to take the vessel to New York, was taken aboard at Ponta Delgada". Not only was the coal supply with which the vessel left Ponta Delgada wholly insufficient, but it was so grossly insufficient that it is impossible to believe that the officers of the vessel were not aware of this fact. The petitioner now contends that the officers of the *Willdomino* had no intention of proceeding direct to New York when they left Ponta Delgada; but if this was the case, they deliberately perjured themselves. We have already quoted the testimony of the master on this point. The chief engineer testified to the same effect as follows:

> "Q. You also had in your own mind, the possibility of taking coal at Sydney in the event of head winds or having troubles? A. Yes, I had 629 tons of coal leaving Ponta Delgada.
>
> Q. That was sufficient to take you to New York, was it? A. Sufficient to take us to New York.
>
> Q. Then you proceeded from Ponta Delgada to New York, you used the LP turbines all the way over? A. All the way over, yes.
>
> Q. With the HP blanked off? A. With the HP blanked off.
>
> Q. Did you have any trouble with the turbines or the oil pumps after Ponta Delgada? A. None at all, everything worked beautifully.
>
> Q. Did you make less speed than you anticipated? A. Yes.
>
> Q. Did it take a greater amount of coal than you anticipated? A. Yes, I measured the coal and found we were burning approximately 50 tons a day.
>
> Q. Eventually you had a consultation with

the captain, did you, as to what would be best to be done about proceeding to New York, or putting into North Sydney? A. We were making Sydney because we knew it would be impossible to reach New York with that amount.

Q. When did you make up your mind? A. Four or five days after we left, we were making very little speed, we could see we would have no coal left, then the ship would have to be towed home, a complete loss.

Q. You decided to put into Sydney for safety? A. Decided to put into Sydney" (R. 465, 466).

"Q. Did you hear the captain say he was going to Sydney from Ponta Delgada? A. No, we would have gone to Sydney in case we found out we could not reach New York on account of head winds, or we were not making sufficient speed in the Gulf Stream.

Q. When you figure on how much coal is necessary, do you figure down to one or two tons and buy enough so you can get to destination? A. No, we always take two or three days more than what is absolutely necessary.

Q. Was that the case in this instance? A. Yes.

Q. You figured you had a surplus of two or three days running to New York? A. Running to New York, if we had gone on good speed and everything favorable.

Q. Then the captain gave you the distance from Ponta Delgada to New York, did he? A. Yes.

Q. From that distance you figured out how much coal you would need? A. Yes.

Q. You don't recall what he told you the dis-

tance was? A. I don't recall now, there is a chart here.

Q. You have not those figures? A. No, not with me, it is easy to reckon up if I knew the distance.

Q. You don't know where your memorandum is upon which you made those figures? A. No, just on a scrap of paper, so much coal.

Q. Did your estimate turn out rather close as to the amount of coal, 50 or 51 tons; is that about what you used? A. That is about it, 49 to 50 all the way to Sydney.

Q. So there was no mistake in your estimate, if there was any failure in the supply of coal? A. I can't quite grasp that question.

Q. I mean if the distances that were given to you were correct and you figured on the speed of the ship at 6 knots and a certain distance per day, and then you told the captain how much coal to buy, inasmuch as you did only burn about 49 or 50 tons, you should have been able to reach New York on your estimate? A. Easily.

Q. Do you know why you were not able to? A. We were in the Gulf Stream, that was preventing our speed two or three days, other days heavy weather.

Q. You had quite some bad weather? A. Although the engines are making even 6½ knots, the ship is only going through the water at a speed of 1 knot an hour with head winds.

Q. Did that happen often on this voyage? A. That happened various days.

Q. You had heavy head winds, bad weather? A. Head winds, and we were right in the Gulf Stream, passing through the Gulf Stream where it was against us; it knocks the speed off the ship.

Q. Can you account for the fact that other officers have testified that they had a perfect voyage? A. I can't; nothing to do with me" (R. 478, 479).

"Q. You didn't figure on enough coal to take you to Sydney, you figured on enough to take you to New York? A. To take me to New York.

Q. And you also figured you had sufficient for three days extra? A. Somewhere up there, two to three days.

Q. Do you know what the length of voyage from Ponta Delgada at 6½ knots an hour to New York should be in days? A. I should think it would be about nine days.

Q. You figured you had 12 days' supply of coal? A. Yes" (R. 486).

As a matter of fact, the log books show that the vessel experienced no bad weather on the voyage from Ponta Delgada to Sydney, and this is proved also by the testimony of the deck officers (Deck log, R. 1034 to 1059; Thirkell, R. 367; Brockwell, R. 395).

Furthermore, the estimates of the master and chief engineer as to speed and coal consumption turned out to be absolutely correct (*infra*, p. 30). Accordingly, there was nothing in the conditions encountered after the vessel left Ponta Delgada which affects the case in any way. The chief engineer's suggestion that the Gulf Stream was responsible for the vessel's inability to reach New York merely shows the lengths to which he was forced to go in his efforts to maintain a wholly untenable position. The effect of the Gulf Stream is constant and

well-recognized, and the officers of the *Willdomino* were bound to take it into account in determining the amount of coal required.

Under these circumstances, the fact that the vessel reached Sydney with only 62 tons of coal left on board furnishes the best possible proof that there was not the slightest chance of her reaching New York with the supply which she had on board when she left Ponta Delgada.

In the light of this evidence, it is impossible to escape the conclusion that the master and chief engineer of the steamer testified falsely. Either they had no intention of endeavoring to reach New York, or else they sailed for New York with full knowledge of the fact that they had an insufficient supply of fuel. It is impossible to assume that any competent master or chief engineer could have sailed from Ponta Delgada with 629 tons of coal and expected to reach New York with a speed of 6½ knots per hour and a coal consumption of 50 tons per day. The proposition is simply absurd.

The only question which really requires consideration is whether the steamer really sailed for New York, or whether she actually sailed for Sydney, C. B. In addition to the testimony of the master and the chief engineer there is some other very cogent evidence that the vessel did actually sail from Ponta Delgada for New York. The *Willdomino* left Ponta Delgada on July 10th. Five days later, on July 15th, the engine room log contains the following entry:

> "Opened up Cross bunkers at 10-0 A. M. Coal taken in Azores finished" (R. 1237).

On the following day, July 16th, the engine room log contains the following entries:

> "Informed Captain that it would be better to make direct for Halifax and to get in Gulf Stream as soon as possible" (R. 1239).

Also, the following entry:

> "Course altered at noon" (R. 1239).

This entry evidently refers to the preceding noon, and is confirmed by the entries in the deck log (Claimant's Exhibit E-2, R. 1046). At all times after leaving Ponta Delgada, the vessel followed a course of N.52°W. until noon on July 15th. At that time her course was changed to the northward and thereafter she followed a course of N.45°W. for 24 hours and thereafter followed a course of N.30°W. until 9 A. M. on July 18th, when she took a course of N.45°W., which she followed until 9 o'clock P. M. on July 19th, after which her course was gradually altered to the westward until she reached the vicinity of North Sydney. These contemporaneous entries afford very strong evidence that the course of the vessel was first laid for New York and later changed for North Sydney.

Further evidence to the same effect is afforded by the record of distance traveled, as reported in the deck log (Claimant's Exhibit E-2). Taking the distances traveled as recorded at noon on each day of the voyage from Ponta Delgada to Sydney, it appears that the vessel traveled a total distance of 1,732 miles (R. 1034 to 1059). But the actual steaming distance from St. Michael's to Sydney is only 1,645 (Reed's Tables of Distances, p. 142). Accordingly, it is apparent

that the vessel traveled nearly 100 miles further than would have been necessary if she had proceeded direct from Ponta Delgada to Sydney.

In this connection it should be noted, in passing, that the vessel traveled this distance of 1,735 miles in the period between 7:40 P. M. on July 10th and 10:30 A. M. on July 22nd, a period of 11½ days. This shows a speed of almost exactly 150 miles per day, or 6¼ miles per hour. During the same period (11½ days) the steamer consumed the difference between the 629 tons of coal with which she left Ponta Delgada and the 61 tons with which she arrived at Sydney, *i. e.*, she consumed 568 tons of coal, or an average of slightly over 49 tons per day. It, therefore, appears that the assumptions of the master and chief engineer at Ponta Delgada as to what the vessel's speed and coal consumption would be after leaving Ponta Delgada were precisely fufilled.

The additional distance traveled fits in exactly with the following testimony of the master:

> "Q. If you had been going to leave Ponta Delgada direct for Sydney would you have taken the same course? A. It would have been different.
>
> Q. Would not you have gone north of Fayal, taken a bigger swing? A. Yes, I would have gone through here (indicating).
>
> Q. So you really were started for New York? A. Really were started for New York, I cleared for New York in the first place, with Sydney, Lewisburg or Halifax in view should we be running short of coal.
>
> Q. Why should you have to have those things

in view in case of running short of coal, is that a case of accident or didn't you take enough coal for the voyage? A. I took sufficient coal to carry me to New York.

Q. That is, was that your estimate or the chief engineer's? A. The chief engineer's and mine" (Beeby, R. 316, 317).

The petitioner suggests in its brief that the log entries with respect to the distance traveled are entitled to no weight because of "the possibility of mechanical and human error". The petitioner also refers to the difference of 87 miles between the actual distance from Ponta Delgada to Sydney and the distance shown in the log, as a "trifling and negligible difference". Navigation would indeed be a hazardous occupation if a difference in reckoning of 87 miles were considered "trifling and negligible" in a voyage of less than 1,650 miles. Log entries are checked by solar observations, and, under normal conditions, they are exceedingly accurate. We call attention to the fact (*supra*, pp. 18, 19) that there was a difference of only 22 miles between the actual distance and the distance by log on the steamer's previous trip of over 4,000 miles from Norfolk to Marseilles.

On the point now under discussion, however, we do not rely primarily on the difference between the actual distance and the distance by log from Ponta Delgada to North Sydney. The fact that the vessel did not follow the usual course is established definitely and without contradiction by the testimony of her master; and the log book is cited merely by way of corroboration.

Even if it be conceded, for the purposes of argument under this head, that the *Willdomino* would have been

justified in proceeding direct to North Sydney for bunkers, this is quite a different matter from proceeding for New York with insufficient bunkers and then turning aside to North Sydney when it became clear that she could not reach New York. A vessel which runs short of fuel in mid-ocean is always in a position of danger. This danger may be greater or less, according to the distance of the nearest port of refuge, but there is danger in the very nature of the situation. We submit that there is and can be no authority to justify a vessel in sailing with insufficient bunkers for the port to which she is bound. Orderly and safe navigation requires that the terminus of a voyage be decided upon at the port of departure, and not dictated by necessity in mid-ocean. The latter course, depending as it does upon individual judgment, is necessarily subject to error. Perhaps the most obvious objection to it is that the whole purpose of such a method of navigation, *i. e.* the endeavor to proceed as far as possible with a given supply of coal, is inconsistent with safety.

The dangers involved in the method of navigation followed by the *Willdomino* are well illustrated by her own experience. Her master was not familiar with the coast of Nova Scotia, between North Sydney and Halifax (Beeby, R. 285). In fact he had never been over the course between these ports (Beeby, R. 319). This is a notoriously dangerous coast.

> "Fogs are very prevalent; the currents are very treacherous and the coast is very tortuous and rugged" (McNaught, R. 809, 810).

It can readily be seen that navigating between two Nova Scotian ports is much more dangerous than approaching

either one of them from the regular Trans-Atlantic routes. In the first case, the vessel is skirting the coast; in the other, she is approaching the coast at right angles. In the present case, while the *Willdomino* was still at least one day away from North Sydney, she received a wireless message directing her to proceed to Halifax. If she had had a reasonably sufficient supply of fuel she need never have gotten near the Nova Scotian coast until she arrived at Halifax. Owing to her meager supply of fuel, however, she lacked some 60 tons of sufficient coal to reach Halifax. This made it necessary for her to continue on to North Sydney, where she obtained barely sufficient coal to reach Halifax. The result was that she had to make the disastrous voyage along the coast, not having even sufficient coal to go a safe distance out from the dangerous Nova Scotian shore-line.

In connection with the facts discussed above, we ask the Court to consider what the situation would have been if the vessel had cleared direct for North Sydney with a proper supply of coal. The voyage of 1,645 miles, at 6½ miles per hour would have taken 10½ days. Burning 50 tons of coal per day, the vessel would have consumed 525 tons. Making the usual 20% minimum allowance for emergencies, she should have sailed with 630 tons of coal. As this would have been 105 tons over her actual needs, she would have reached North Sydney with enough spare fuel to carry her to Halifax (she actually left Sydney with 108 tons 10 cwt.; Engineer's log, R. 1253 to 1255). As a matter of fact, however, she would have had considerably more than this, for she received the message diverting her to Halifax the day before she reached North Sydney, and would have saved the coal which she actually consumed going into North Sydney, as well as 15 tons which were consumed in North

Sydney Harbor (R. 1253). Accordingly, the stranding of the vessel is directly attributable to the fact that the *Willdomino* sailed from Ponta Delgada not only with insufficient coal to reach New York, but actually without a proper supply (including the usual 20% allowance for emergencies) to reach the nearest coaling port, North Sydney, C. B.

It will doubtless be argued on behalf of the claimant that Gibraltar and Ponta Delgada were intermediate ports, and that the claimant is not responsible for what occurred there. Two answers may be made to this contention, either of which is sufficient.

In the first place it is well-settled that the owner of a vessel must make her seaworthy for the entire voyage; or, if he treats the voyage as consisting of several stages, then he must make her seaworthy at the beginning of each of such stages.

In *Thin* v. *Richards & Co.* (1892), 2 Q. B. 141, the plaintiffs were time charterers of the Steamship *Westfalia,* under a charter party which contained the following clauses:

> "The ship being tight, staunch, and strong, and every way fitted for the voyage, shall * * * proceed to Oran * * *, and there load from the charterers, or their agents, a part cargo (say 200 to 250 tons) of Broza (having liberty to fill up with ore or other dead weight cargo for owner's benefit) * * * and being so loaded, shall therewith proceed to Garston dock, or so near thereto as she may safely get, and deliver the same agreeably to bills of lading * * *. Any act, neglect, or default whatever of pilot,

> master or crew in the management or navigation of the ship * * * always mutually excepted. The vessel to have liberty to call at any ports in any order * * *." (p. 141.)

The *Westfalia*, after loading plaintiff's cargo at Oran, proceeded to Huelva, and there filled with iron ore. Although the ship took on a further supply of coal at Oran, she did not have sufficient coal aboard, when leaving the latter port, for the voyage to Garston. This was due to an erroneous report on the part of the engineers, who thought she had 80 tons aboard, which was sufficient for the voyage to Garston.

After leaving Huelva, bad weather was encountered, the supply of coal ran short and the ship put back in an endeavor to make a Spanish port. She went ashore, and was lost with her cargo.

Accordingly, the plaintiffs sued for breach of contract by non-delivery of their cargo.

The trial Court held that the voyage was an entire voyage from Oran to Garston, and that, the warranty of seaworthiness at the commencement of that voyage having been broken, the plaintiffs were entitled to recover.

In the Court of Appeal it was further held that, even if the voyage could be treated as one divided into stages, the warranty of seaworthiness, which attaches at the commencement of each stage, had been broken at Huelva. The language of Fry, L. J., on this point is quite interesting (at p. 144):

> "The voyage from Oran to Garston was either an undivided voyage or it was a voyage in stages.

> In the former case it would be necessary that the vessel should be seaworthy at Oran for the whole voyage. In the second case she must be seaworthy at the commencement of each stage, and therefore seaworthy when she left Huelva. In either case, the warranty of seaworthiness has been broken. It is just and right that the plaintiff should be entitled to recover, for the law imposes a warranty of seaworthiness for the entire voyage contemplated by the parties, and the shipowner ought not to be able to escape from this liability by dividing the voyage into stages."

This decision was followed in the *Vortigern*, 1899 Prob. 140, where an action was brought by the owners of the steamship *Vortigern* to recover freight due under a charter party. The defense was that a portion of the defendant's cargo, consisting of copra—a species of cocoanut, had, during the voyage, been burnt by the master as fuel for the ship; and that this burning of the cargo had taken place in consequence of a breach of the implied warranty of seaworthiness which attached to the contract of affreightment at the commencement of the voyage; that is, that coal necessary for the due prosecution of the voyage had not been taken on board when the ship commenced the chartered voyage, and the cargo had, therefore. to be used as fuel in the place of coal.

It appeared that the vessel had left Cebu (Philippine Islands) for Liverpool, with the cargo in question. She called at Colombo, but did not take in a reasonably sufficient quantity of coal for the next stage to Suez, and, when passing Perim (a coaling station), the master did not call there, owing to the negligence of the engineer

in not informing him that the coal was running short. Consequently, whilst proceeding up the Red Sea, 50 tons of cargo were burned as fuel, in order to carry the vessel on to Suez, where she coaled again, and thus was enabled to perform the chartered voyage to Liverpool.

The Court, in deciding in favor of the defendants, held that, if the plaintiff shipowners, owing to the necessity for coaling, availed themselves of the liberty to call at ports on the way, they must make their vessel seaworthy at the commencement of each stage of the voyage she thus entered upon, and, in the circumstances of this case, the second stage was from Colombo to Suez. The plaintiffs, therefore, could not rely on the exception covering negligence of the engineer when off Perim, as by the insufficiency of coal, when the vessel left Colombo, the implied warranty of seaworthiness had been broken.

See also:

Moore v. *Lunn*, 38 T. L. R. 649; affirmed in the Court of Appeal, 39 T. L. R. 526.

A second and even more conclusive answer to the suggestion that Gibraltar and Ponta Delgada were intermediate ports, is the fact that the failure of the vessel to receive sufficient fuel at these ports resulted directly from the claimant's express orders to that effect. It will scarcely be suggested that a shipowner who, by his own deliberate act, renders a vessel unseaworthy at an intermediate port, can claim the benefit of the Harter Act because of the diligence which he may have used at some earlier port. So far as we know, such a suggestion has never been made, and we assume that it will not be made in this case. And yet there can be no doubt

that the unseaworthiness of the *Willdomino*, at all times after leaving Gibraltar, was the direct result of her owner's cable instructions to the master. The master did exactly what the president of the claimant company instructed him to do. When confronted with his cable to the master at Gibraltar, Williams, president of the claimant company, testified as follows:

> "Q. Well, why did you tell him to get only enough coal to take him to Sydney and then if he hadn't quite figured it accurately, to get enough to come in on one boiler only? A. The intention of that was that if he should run into bad weather and as he was approaching the coast began to run short of coal, that he should cut out one boiler, which is practical from an economical engineering standpoint" (R. 857).
>
> "Q. At any rate, you didn't intend to allow your master to buy more than enough coal to get to Sydney and get there on one boiler at that, if necessary? A. That's the way that cable looks to me that we had that in mind at that time" (R. 861).
>
> "Q. When you sent this cable to your master, did you mean that he should follow the directions contained in it, or not? A. Generally speaking, yes.
>
> Q. You would have discharged him, if he hadn't done it, wouldn't you? A. Generally speaking, I may have.
>
> Q. You sent this order to your master to be obeyed, didn't you? A. Generally speaking" (R. 866, 867).

In the face of this cable to Gibraltar, and the testimony above quoted, it is idle for the claimant now to

attempt to evade responsibility for the master's failure to take on board sufficient coal at Gibraltar and Ponta Delgada. Claimant's cable was clear and the master of the vessel obeyed it literally. This Court will note the peremptory tone of the cable in question, which starts off with the words "your coal requirements excessive". This cable could not fail to influence the master contrary to his own judgment. In fact, the following testimony of Williams shows that it was intended for that precise purpose:

> "Q. Now, what was your purpose in sending this telegram, Claimant's Exhibit F, to the master of the vessel? A. I would gather from that that we had had some advices from the master stating he wanted a certain number of tons of coal at Gibraltar, and that I probably advised him to remeasure his bunkers to be certain of his requirements. I probably had in mind the amount of coal——
>
> Mr. Carpenter: I object to that 'probably'—I want the truth.
>
> The Court: Strike out 'probably'.
>
> A. Having in mind the amount of bunkers that he took aboard on sailing for Marseilles, which as I recall it were intended to cover the round trip bunkers; having further in mind that engineers and masters are much inclined to take an excessive amount of bunkers, regardless of cost *as a further safety in their operating of ships*" (R. 855).

In other words, claimant sent this cable with the deliberate purpose of cutting down the margin of safety which the master considered necessary. Certainly, an

owner who assumes to dictate the amount of coal to be taken on board, and who deliberately cuts down the margin of safety in that respect, is equally responsible whether this action is taken at the port where the voyage begins or at a later port.

Petitioner may attempt to argue in this Court that even if it is responsible for the amount of coal taken on at Gibraltar and Ponta Delgada, it is not responsible for the action of the master in sailing for New York instead of North Sydney. We are confident that this Court will not entertain such an argument at this stage of the case. In both of the lower courts, the petitioner adopted the position of the master as its own, and urged that the vessel sailed for New York and that she was fully justified in so doing. Surely it is now too late for the petitioner to repudiate the action of the master and suggest that it was a violation of petitioner's instructions.

POINT II.

Having failed to use due diligence to make the *Willdomino* seaworthy as required by Section 3 of the Harter Act (27 Stat. L. 445), and having on the contrary, directed her to sail in an unseaworthy condition, the petitioner, as owner of the vessel, cannot invoke the protection of that section, but is liable for damage to cargo resulting from the negligence of its servants.

It is conceded in this Court, that the stranding of the *Willdomino* was due to negligent navigation (Petitioner's Brief, p. 12).

Not having supplied the *Willdomino* with sufficient fuel, or used due diligence to that end, it is clear that the petitioner is not protected by the Harter Act; nor is the petitioner protected by any clause in its bill of lading purporting to exempt it from liability for negligent navigation.

The principles of law applicable to the facts of this case are clear and well-settled. A shipowner cannot exempt himself from liability for a negligent stranding, excepting by compliance with the terms of the Harter Act. This principle has frequently been stated by this Court. Thus, in the case of *The Jason*, 225 U. S. 32, this Court said, at page 49:

> "Prior to the Harter Act it was established that a common carrier by sea could not by any agreement in the bill of lading exempt himself from responding to the owner of cargo for damages arising from the negligence of the master or crew of the vessel. *Liverpool & G. W. Steam Co.* v. *Phenix Ins. Co.*, 129 U. S. 397, 438; following *New York Central Railroad Co.* v. *Lockwood*, 17 Wall. 357."

Accordingly, unless the shipowner can show affirmatively that he has used due diligence, as required by the Harter Act, he can have no exemption, either contractual or statutory, in respect of losses due to negligent navigation.

The Harter Act (Act of February 13, 1893), provides as follows (Section 3):

> "That if the owner of any vessel transporting merchandise or property to or from any port in the

> United States of America shall exercise due diligence to make the said vessel in all respects seaworthy and properly manned, equipped, and supplied, neither the vessel, her owner or owners, agent or charterers shall become or be held responsible for damages or loss resulting from faults or errors in navigation or in the management of said vessel," etc.

In the case of *International Navigation Company* v. *Farr & Bailey Mfg. Co.*, 181 U. S. 218, this Court said, at page 225:

> "We do not think that a shipowner exercises due diligence within the meaning of the act by merely furnishing proper structure and equipment, for the diligence required is diligence to make the ship *in all respects* seaworthy, and that, in our judgment, means due diligence on the part of all the owners' servants in the use of the equipment before the commencement of the voyage and until it is actually commenced."

We call the Court's attention particularly to the fact that the italics in the foregoing quotation are not our own, but appear in the original opinion.

Later in the same opinion (p. 226) the Court said:

> **"We repeat that even if the loss occur through fault or error in management, the exemption cannot be availed of unless the vessel was seaworthy when she sailed, or due diligence to make her so had been exercised, and it is for the owner to establish the existence of one or the other of these conditions." (Black face type ours.)**

In the later case of *The Wilderoft*, 201 U. S. 378, at pages 388, 389, this Court said:

> "To permit a cargo of sugar to be injured by the introduction of fresh water in the manner shown, but for the provisions of this act, would have made a case of clear liability against the owner, and where the statute has given immunity against such loss by reason of error in navigation or management, it does so upon the distinct condition that the owner shall show that the vessel was in all respects seaworthy and properly manned, equipped and supplied for the voyage; or, if this cannot be established, that he has used due diligence to obtain this end. The discharge of this duty is not left to any presumption in the absence of proof. **It is the condition precedent, compliance with which is required of the vessel owner in order to give him the benefit of the immunity afforded by the act.** * * * It is only when he has discharged the burden which the law imposes upon him, and shown that he has furnished a vessel, fit and seaworthy, or has used due diligence to that end, that the law relieves him of the liability which he would otherwise incur." (Black face type ours.)

The foregoing authorities show clearly that there need be no causal connection between the lack of due diligence and the subsequent negligence.

See also *The Southwark*, 191 U. S. 1, at page 16.

It was suggested in the courts below that the language above quoted was mere dictum, but we submit

that this is not the case. One of the points made on behalf of the carrier in the *Farr & Bailey* case was that the loss was due to negligence of the crew; so that the language quoted was an essential part of the decision. But even if the language quoted were dictum, it has stood unchallenged as a correct statement of the law for twenty-five years. Moreover, in *The Wildcroft, supra,* this Court, although affirming the decision of the Circuit Court of Appeals, deemed it necessary to correct the erroneous interpretation of the Harter Act embodied in the opinion of the lower Court (201 U. S. at p. 388). We submit that a statement of the law made under such circumstances is not to be lightly disregarded.

There is no decision either of this Court or of any of the lower courts which is contrary to the rule laid down in the above quotations.

The petitioner's entire argument on this point, as set forth in Point III of its brief, is based upon a complete misconception of the purpose and effect of the Harter Act and its relation to pre-existing law. In effect, petitioner's argument is that it would be absurd to hold it responsible, on account of the shortage of fuel, for damage which did not result from that cause. This argument is plausible enough on its face, but it is based on a misstatement of the facts. The petitioner was not held liable because its vessel was short of fuel, but because its servants were guilty of negligence in navigation, which directly caused the damage to respondents' cargo. The basis of petitioner's liability is the fundamental principle of all law, that one who negligently damages the property of another is liable for the damage; together with the rule of *respondeat superior,* which extends this liability to include the negligence of his servants. It is

true that Congress has created a statutory modification of this general liability, of which the petitioner might have obtained the benefit by complying with the conditions upon which it is granted. Not having complied with these conditions, the petitioner, of course, cannot obtain the benefits of the statute.

The very structure of the third section of the Harter Act clearly indicates that there is no causal connection contemplated between the condition and the exemption. There will rarely be any connection between unseaworthiness and negligence in navigation; and yet due diligence to make the ship seaworthy is made the condition of exemption in respect of negligent navigation. If the Act were based on causal relation, one would expect that a shipowner who had used due diligence to make his ship seaworthy would be relieved from liability for losses resulting from unseaworthiness. The Act does not say this, however, and is not so construed. In *The Carib Prince*, 170 U. S. 655, at pages 661-2, this Court held that the Harter Act does not protect the shipowner in respect of damage due to unseaworthiness, even though he has used due diligence to make his vessel seaworthy.

The petitioner's misconception of the effect of the Harter Act is well illustrated by its citation of the decision of the Circuit Court of Appeals for the Fourth Circuit in the case of *The Turret Crown* (Petitioner's Brief, p. 42). That decision, as appears from the passage quoted by the petitioner, was based upon the assumption that the damage to the cargo of the *Turret Crown* was due to the entry of water through the bottom of the vessel, which was not caused by unseaworthiness. Under these circumstances the court very properly held that the negligence of the owners, in not making the ship seaworthy in

respect of her steering gear, did not render them liable. That decision has no bearing whatever on the present case, because in that case the ship owner was not relying upon the Harter Act for its defense. If a shipowner negligently fails to make his ship seaworthy in some respect, and the cargo of the vessel is later damaged by sea perils, to which the unseaworthiness does not contribute in any way, the shipowner is, of course, protected by the usual stipulation in his bill of lading against liability for damage due to perils of the sea. Such a stipulation was valid before the Harter Act and is equally valid now. If, however, in the case supposed, the damage is due not to sea perils but to negligence in navigation, the shipowner is not protected. In the latter case, a stipulation relieving the carrier from liability for the negligence of his servants was invalid before the Harter Act, and it is equally invalid now, unless the shipowner has complied with the conditions laid down in the 3rd section of the Harter Act, in which event such a stipulation in the bill of lading is superfluous.

The foregoing analysis of the law, as modified by the Harter Act, discloses the fallacy involved in the briefs which were filed in this case by *amici curiae*, and which are quoted at pages 61 and 62 of the petitioner's brief.

These briefs were served on the respondents' counsel so short a time before the petition for *certiorari* was submitted that respondents had no opportunity to answer them. The first of these briefs contains the following erroneous statement:

> "By the decision of the Circuit Court of Appeals, Section 3, instead of granting benefits, imposes a burden which did not exist before the statute was enacted."

The second of these briefs contains the same fallacious statement, and also contains the following amazing misstatement of the law:

> "Therefore, under the decision of the Circuit Court of Appeals, if the shipowner failed to make his vessel seaworthy, he would be liable for losses due to the Act of God, the public enemy, the inherent vice of the thing carried, insufficiency of package, or seizure under legal process, even though the vessel's lack of seaworthiness had no possible connection with the loss, and although the goods suffered no damage whatsoever from the vessel's lack of seaworthiness."

Respondents' counsel are unable to comprehend how lawyers familiar with the maritime law of this country could make the statements quoted above. The Harter Act does not impose any liability at all. The first two sections of the Act are merely declaratory of the law as it stood before they were passed. They forbid carriers to insert in their bills of lading clauses relieving them of liability for their own negligence or the negligence of their servants; and such clauses were, of course, void at common law (see quotation from *The Jason*, *supra*, p. 41). The third section of the Act gives the carrier a conditional exemption from liability for losses due to certain specified causes. If a shipowner complies with the conditions laid down in this section, the section gives him certain protection which he already had at common law (*e. g.*, in respect of acts of God and public enemies—cf. *The Maggie Hammond*, 9 Wall. 435, at p. 444); it also gives him, *proprio vigore*, certain protection (*e. g.*, in respect of sea perils) which he could otherwise obtain by contract; and certain protection

(*i. e.* in respect of the negligence of his servants) which he could not legally obtain in any other way than by compliance with this section. A shipowner who does not comply with these conditions is in exactly the same position as before the Act was passed. He can exempt himself, by the terms of his bill of lading from liability for damage due to perils of the sea, latent defects and similar causes, but he cannot exempt himself from liability for damage due to negligence.

If the authorities cited by the petitioner are considered with the foregoing principles in mind, it will be found that none of them has the slightest bearing on the present case, with the exception of the dictum of the United States District Court for the Southern District of New York in *The Turret Crown* case, and the article by Mr. Green in the Harvard Law Review.

When the case of *The Turret Crown* came up in the Second Circuit (275 Fed. Rep. 961), the trial court decided that the shipowner had used due diligence with respect to the fuel tanks of the vessel; but not with respect to the steering gear; that both the fuel tanks and the steering gear were unseaworthy; that the tanks were damaged by heavy weather, causing damage to the cargo; but that the condition of the steering gear did not contribute to the damage. On these facts he held that the vessel was not liable. As already pointed out, this decision was perfectly proper. The damage having been caused by latent defects or perils of the sea, the shipowner was not dependent on the Harter Act for protection; and although the shipowner had not complied with the terms of the Harter Act and was not entitled to its benefits, he was, nevertheless, fully protected by the terms of his bills of lading. After reaching this decision, which was perfectly sound as a matter of law, the

court, unfortunately, by way of dictum, made the statement quoted at the bottom of page 40 of the petitioner's brief, to the effect that if negligence in navigation contributed to the bottom damage, it was excused by the Harter Act. This inadvertent statement was clearly erroneous. The case was later reversed by the Circuit Court of Appeals, which found that the owner's lack of due diligence in respect of the steering gear did in fact contribute to the bottom damage.

Accordingly, the petitioner's authorities consist of a dictum of a District Court, in a case which was later reversed by the Circuit Court of Appeals (297 Fed. Rep. 766; petition for certiorari denied 264 U. S. 591); and an article in the Harvard Law Review which was written prior to some of the strongest expressions of this Court on the point in question, and which, of course, has no force as a precedent. In speaking of the carrier's obligations with respect to the Harter Act, Mr. Green says (Petitioner's Brief, p. 60):

> "But so far as concerns liability for damage to cargo, his only duty is to avoid such damage, and, if no damage results from his lack of diligence, the carrier is at liberty to be as careless as he pleases. If his lack of diligence does not contribute to the damage, he has used all the diligence that was due, and the proviso is fulfilled."

It would be difficult to state a rule more diametrically opposed to the spirit and purpose of the Harter Act. If Mr. Green's view is correct, the third section of the Harter Act should have read:

> "A shipowner shall not be liable for damage resulting from any negligence in the navigation

> or management of his ship, to which his own lack of due diligence in making the ship seaworthy and manning and equipping her for the voyage does not contribute."

Instead of using some such language as this, Congress made the exemption absolutely and clearly conditional on the use of due diligence. Congress may well have had in mind the fact that laxity and carelessness on the part of the management is likely to be reflected in the attitude of the officers and crew. Whatever the reason, the language of the Harter Act makes it clear that Congress did not intend, as suggested by Mr. Green that,

> "the carrier is at liberty to be as careless as he pleases"

and still enjoy the protection of the third section of the Harter Act, so long as his carelessness does not contribute to the damage to cargo. On the contrary, the language of the Harter Act is——

> "that *if the owner * * * shall exercise due diligence to make the said vessel in all respects seaworthy and properly manned, equipped, and supplied* neither the vessel, her owner or owners, agent, or charterers, shall become or be held responsible for damage or loss resulting from faults or errors in navigation or in the management of said vessel * * *." (Italics ours.)

The suggestion that the Harter Act should be so interpreted as to bring it into accord with the law of England, where there is no such statute, scarcely requires discussion in this Court. Even in the absence of statute, the Federal courts have always held that it was against public policy for a common carrier to exempt himself

from liability for damage due to the negligence of himself or his servants. For more than a century, there has been no such public policy in England, where contracts affording such an exemption are unquestionably valid. *Liverpool Steam Co.* v. *Phenix Ins. Co.*, 129 U. S. 397, at page 447. In such a situation, the desirability for international uniformity may be a proper subject for consideration by Congress, but it can have no weight with the courts.

The so-called Hague Rules represent an effort to bring about precisely the international uniformity which the petitioner asks this Court to establish by judicial decree. These rules have become British law by the British "Carriage of Goods by Sea Act, 1924"; but, although they have been under consideration by Congressional Committees for several years, they have not yet been adopted in this country. Just what bearing the pendency of this legislation has on the present case is not clear to us. If the petitioner's suggestion is that such legislation is so desirable that it should be anticipated and put immediately into effect by decision of this Court, the suggestion requires no reply. If, on the other hand, the petitioner's suggestion is that the Hague Rules are to be regarded as a codification of the existing law of the United States, it is negatived by the entire history of the Rules, as disclosed by the report of the American representatives at the International Conference at Brussels in 1922, and by the various Congressional hearings on the subject. We refer the Court to the following public documents:

> "Report of the Delegates of the United States to the International Conference on Maritime Law,

Fifth Session, at Brussels, Belgium, October 17-26, 1922."

"Hearings relating to the Carriage of Goods by Sea before the Committee on the Merchant Marine & Fisheries, House of Representatives, 67th Congress, 4th Session, February 13th and 14th, 1923."

"Hearings relating to the Carriage of Goods by Sea before the Committee on the Merchant Marine & Fisheries, House of Representatives, 68th Congress, 2nd Session, January 28th and 29th, 1925."

The precise point now under consideration was discussed at the hearing before the House Committee on the Merchant Marine & Fisheries on February 13th and 14th, 1923. At that hearing Mr. Norman B. Beecher appeared and made a statement with respect to the Hague Rules. At the time of this hearing Mr. Beecher was Special Admiralty Counsel to the United States Shipping Board. He had attended the Brussels Conference as one of the representatives of the United States, the other being Hon. Charles M. Hough, one of the Judges of the United States Circuit Court of Appeals for the Second Circuit. Before occupying these official positions, Mr. Beecher had enjoyed a long and distinguished career as a specialist in admiralty law at the New York City Bar.* In the course of his argument before the Committee, Mr. Beecher made the following statement (at p. 15):

> "This section constitutes a modification of the Harter Act in that it does not make it a condition precedent to the carrier receiving the benefit of these exceptions that he shall have exercised

* Mr. Beecher was a member of the same firm as Mr. Hupper, whose brief as *amicus curiae* is quoted at page 61 of petitioner's brief.

due diligence to make the ship in all respects seaworthy—properly manned, equipped, and so forth. It is true that the shipowner is under that obligation just as fully as before. It is an affirmative duty resting upon him, and the shipper may always recover where the damage or loss is the result of a failure on the part of the shipowner to comply with the affirmative obligation placed upon him of exercising due diligence with respect to the seaworthiness of the ship and, in addition, as I have just pointed out, the carrier himself is under the obligation, contrary to the ordinary principles of American law, of proving affirmatively that he has exercised due diligence.

"The change in reality, would affect but few cases. It presents such a situation as this: Suppose a ship sails from New York and, in going down the harbor, owing to an error of the master, she comes into collision with another ship. The compass has not even had the cover taken off; the navigation is all in full view and it is simply an error of navigation on the part of the master, but it is found that the compass is out of order. Now, as that unseaworthiness had not the slightest cause in connection with the disaster, as no one ever looked at the compass, even, it would seem that the shipowner should not be liable, should not be deprived of the Harter Act exemption from liability, as a result of the error of navigation, but probably under existing law that would be the case. Now, this changes that. It says in effect, that the carrier, whenever there is unseaworthiness, whenever he has failed in the duty of due diligence, to have the ship seaworthy and whenever that has resulted in a damage or loss, he must pay for it; but it does not deprive him of

> the benefit of these exceptions where that failure on his part has had nothing whatever to do with the disaster."

The foregoing quotation shows clearly that Mr. Beecher understood the present law to be as found by the Circuit Court of Appeals in this case; and that he understood the Hague Rules as designed to change the law in this respect.

Cases arising under the Act of 1851 (U. S. Comp. Stat. 8021, Rev. Stat. 4283) can have no possible bearing on the interpretation of the Harter Act. The Act of 1851 provides as follows:

> "Sec. 4283. (*Liability of owner not to exceed his interest.*) The liability of the owner of any vessel, for any embezzlement, loss, or destruction, by any person, of any property, goods or merchandise, shipped or put on board of such vessel, or for any loss, damage, or injury by collision, or for any act, matter, or thing, loss, damage, or forfeiture, done, occasioned, or incurred without the privity, or knowledge of such owner or owners, shall in no case exceed the amount or value of the interest of such owner in such vessel and her freight then pending."

It is clear from the language of this statute that the shipowner only loses his right of limitation by reason of his privity with the particular damage or loss claimed. The fact that he is privy to some defect or unseaworthiness having no bearing on the loss or damage is immaterial. The Harter Act, however, is framed on an entirely different theory. As this Court has repeatedly and clearly pointed out, the exemption which it grants is

strictly conditioned on the use of due diligence to make the vessel seaworthy.

In closing under this head, we wish to refer to the facts mentioned elsewhere in this brief, which clearly establish that there was in fact a causal relation between the unseaworthiness of the *Willdomino* and the stranding which caused the damage to libellants' cargo. Even the petitioner does not suggest that the unseaworthiness must be the proximate cause of the loss. Such a suggestion would involve a too flagrant disregard of the language of the Harter Act. The petitioner's argument is that there must be a casual connection; and such a connection is clearly established in this case. The facts of the present case are that a shipowner deliberately sends his vessel to sea with insufficient fuel and, in consequence, it becomes necessary for her to skirt a dangerous and unfamiliar coast, while proceeding from one port to another in search of fuel; while so proceeding, the vessel strands through the negligence of her navigators. To permit the shipowner to have the benefit of the third section of the Harter Act under such circumstances would be to ignore the plain language and the clear intent of that section.

POINT III.

Owing to the deviations of the *Willdomino* from the voyage specified in the bills of lading, the petitioner has forfeited all protection under the clauses of its bills of lading, and is liable as an insurer of libellants' goods.

> "It has long been established law that a deviation changes the character of a voyage so essentially that the shipowner who has deviated can-

not claim the benefit of the terms of the bill of lading. The unjustifiable deviation vitiates or avoids the contract of carriage. *Gibaud* v. *Great Eastern Ry. Co.* (1921), 2 K. B. 426; *Morrison* v. *Shaw* (1916), 2 K. B. 783, 86 L. J. K. B. (N. S.) 97; *International, etc., Werken* v. *McAndrew & Co.* (1909), 78 L. J. K. B. (N. S.) 691, 693; *Thorley* v. *Orchis Steamship Co.* (1907), 1 K. B. 660, 76 L. J. K. B. (N. S.) 106, 595, 10 Asp. M. C. (N. S.) 431; *Leduc* v. *Ward*, 20 Q. B. D. 475; *Lawrence* v. *Minturn*, 17 How. 100, 15 L. Ed. 58; *Constable* v. *National S. S. Co.*, 154 U. S. 51, 14 Sup. Ct. 1062, 38 L. Ed. 903; *Mobile & Montgomery Railroad Co.* v. *Jurey*, 111 U. S. 584, 4 Sup. Ct. 566, 28 L. Ed. 527; *Chubb* v. *7800 Bushels of Oats*, 5 Fed. Cas. 663, No. 2,709; *Knox* v. *The Ninetta*, 14 Fed. Cas. 827, No. 7,912; *Thatcher* v. *McCulloh*, 23 Fed. Cas. 891, No. 13,862; *The Rebecca*, 20 Fed. Cas. 373, No. 11,619; *The Thomas P. Thorn*, 23 Fed. Cas. 1002, No. 13,927; *Stinson* v. *Wyman*, 23 Fed. Cas. 108, No. 13,460; *Vernard* v. *Hudson*, 28 Fed. Cas. 1162,, No. 16,921; *The Waldo*, 28 Fed. Cas. 1356, No. 17,056; *The Wellington*, 29 Fed. Cas. 626, No. 17,384; *Pacific Coast Co.* v. *Yukon Independent Transportation Co.*, 155 Fed. 29, 83 C. C. A. 625; *The Citta di Messina*, 169 Fed. 472, 475; *The Sarnia*, 278 Fed. Rep. 459, at page 463.

See also, *The St. Johns*, 263 U. S. 119."

A deviation not only avoids the bill of lading but makes the carrier liable as an insurer.

"It is obviously advantageous, if not essential, to libellants' case, to show that the facts found constitute deviation. That 'deviation' is a term of art, belonging in the main to the law of marine

insurance, and to be interpreted by that law, seems to me to have been overlooked in argument; and this belief on my part must excuse some review of the subject.

"If an insured shipowner fails to pursue that course of navigation which experience and usage have prescribed as the safest and most expeditious mode of proceeding from one voyage terminus to the other, he violates a tacit but universally implied condition of the contract between himself and his underwriter, who is therefore freed from liability for loss subsequent to deviation because the assured has enhanced or varied the risks insured against. 2 Arnould, Mar. Ins. (8th Ed.) §376; 1 Phil. Ins. §977.

"If the assured cargo owner have his cargo on a vessel which deviates, he for the same reason may lose (though by no fault of his own) all remedy for subsequent loss against his underwriter, but may proceed against the wrongdoing ship for his damages. It is not, of course, necessary that a cargo owner, in order to recover against his carrier for losses subsequent to deviation, should have himself lost insurance protection by reason thereof. The voyage is the same, whether viewed from the standpoint of insurer or shipper, and any deviation therefrom will cast subsequent loss of or injury to either ship or cargo on the ship owner. The reason also is the same, viz., that the carrier by deviating from a voyage described alike in insurance policy and bill of lading, has broken the warranty not to deviate, thereby terminated his own insurance, and given the shipper a right either to rescind the contract of shipment and treat the goods as converted by the deviator, or to accept the goods, holding the ship

responsible for damage subsequent to warranty broken, without any reference to the question whether the deviation had any bearing on the particular loss complained of. *Thorley* v. *Orchis S. S. Co.*, 1 K. B. (1907) 660; *Thatcher* v. *McCulloh, Olcott*, 365 Fed. Cas. No. 13,862."

Hough, *J.*, in *The Citta di Messina*, 169 Fed. Rep. 472, at pages 474-475.

To the same effect see:

The Dunbeth (1897), P. Div. 133, at page 135;
Scaramanga v. *Stamp*, 5 C. P. Div. 295, p. 306;
Davis v. *Garrett*, 6 Bing. 716, at p. 724, 130 English Reprints 1456, at p. 1460;
Leduc v. *Ward*, 20 Q. B. Div. 475, at p. 482;
Bond v. *The Cora*, 3 Fed. Cases No. 1620, p. 841;
Johnson v. *N. Y. Central R. R. Co.*, 33 N. Y. 610, at p. 612;
Knox v. *The Ninetta*, 14 Fed. Cases 827, No. 7,912;
Carver on Carriage of Goods by Sea, 6th Edition, at p. 398;
American & English Encyl. of Law, Vol. 7, at p. 208.

In recent years it has become a common practice to insert in ocean bills of lading one or more clauses giving the vessel very wide privileges of deviation. Such clauses have been very strictly construed. In *Morrison* v. *Shaw* (1916), 2 K. B. 783, the plaintiffs sued the defendant for the loss of a shipment of wool, which was received aboard the defendant's ship at Napier, N. Z., for carriage to London. After the plaintiff's goods were received

aboard ship, a parcel of frozen meat was laden on board for France, and the master received orders to deliver the meat at Havre before going to London. When the ship was about eight miles from Havre she was torpedoed by a German submarine, and sank with her entire cargo. The distance via Havre to London was only fifty-four miles longer than the direct route to London. The bill of lading contained a clause giving the vessel liberty "to call and stay at any intermediate port or ports to discharge or take on board passengers, cargo, coal or other supplies", on the way to London. The Court of Appeal held that Havre was not an intermediate port and, therefore, the vessel was guilty of a wrongful deviation in proceeding to Havre. Accordingly, it was held that the defendants were not protected by the provisions of their bill of lading exempting them from liability for damage caused by the King's enemies.

In *Leduc* v. *Ward,* 20 Q. B. Div. 475, 6 Asp. Mar. Cases (N. S.) 290, the bill of lading gave the vessel liberty "to call at any ports in any order", on a voyage from Fiume to Dunkirk. The vessel was lost while going into Glasgow.

In giving judgment, Lord Esher, M. R., said (at pp. 481-2):

> "In the present case liberty is given to call at any ports in any order. It was argued that that clause gives liberty to call at any port in the world. Here again, it is a question of the construction of a mercantile expression used in a mercantile document, and I think that as such the term can have but one meaning, namely, that the ports, liberty to call at which is intended to be

given, must be ports which are substantially ports which will be passed on the named voyage. Of course such a term must entitle the vessel to go somewhat out of the ordinary track by sea of the named voyage, for going into the port of call in itself would involve that. To 'call' at a port is a well-known sea-term; it means to call for the purposes of business, generally to take in or unload cargo, or to receive orders; it must mean that the vessel may stop at the port of call for a time, or else the liberty to call would be idle. I believe the term has always been interpreted to mean that the ship may call at such ports as would naturally and usually be ports of call on the voyage named."

In *South Atlantic S. S. Line* v. *London-Savannah Naval Stores Co.*, 255 Fed. Rep. 306, the bill of lading gave the vessel liberty "to call at any port or ports, in or out of the customary route, in any order whatsoever, to receive or discharge coals, cargo, passengers, or for any other purpose". Under this bill of lading it was held that the vessel had the right, after receiving a part cargo of naval stores at a U. S. Atlantic or Gulf port, destined for Bristol, England, to complete her cargo by receiving other merchandise, destined for another port or ports in Great Britain, or on the Continent of Europe, and to stop at such other port or ports before going to Bristol. It was proved in the case that this practice was customary in the trade and was known to the shipper who appeared as libellant in that case.

In the case of *The Blandon*, 287 Fed. Rep. 722, the bill of lading gave the ship liberty "to call at any port or ports in or out of the customary route,

in any order". It was held that this justified the vessel, after loading a part cargo at New York, destined for Valencia, Spain, in proceeding to Philadelphia to complete her cargo for Spanish ports; but that it did not justify her in returning to New York before beginning her voyage to Spain. The supplemental opinion of Judge Learned Hand in this case contains a valuable review of the authorities and a very helpful discussion of the principles involved.

The decision in *The Blandon* was followed in the later case of the *Emelia S. de Perez,* decided by Judge A. N. Hand in the Southern District of New York, and reported in 1923 American Maritime Cases, p. 42.

We think the result of the authorities may be summed up as follows: Where the bill of lading does not expressly give the vessel liberty to call at ports outside the customary route, it will not be construed as giving this privilege, no matter how general the language used (cf. *Leduc* v. *Ward, supra*—"at any ports in any order"). Even where the bill of lading expressly gives the vessel liberty to call at ports outside the customary route, the provisions to this effect will be construed with reference to the principal voyage involved, and will not be held to justify an unreasonable departure from this voyage (cf. the reasoning in *The Blandon* and *South Atlantic Co.* v. *London Co.*).

We will now consider the application of the general principles above set forth, to the facts of the present case. In this case the bills of lading contain three clauses which require consideration in this connection. Two of these clauses are printed in the body of the bills

of lading and are as follows (Claimant's Exhibits A and B; R. 916-7):

> "with liberty to call at intermediate ports or any port or ports in or out of the customary route in any order, to receive and discharge coal, cargo, passengers, and for any other purposes. * * * The ship has liberty of filling up and/or bunkering at any port or ports in or out of the way."

The third clause to be considered is written at the bottom of the bill of lading, with pen and ink, and reads as follows:

> "Filling up only in ports on the way westwards of New York."

As we have already stated, it was not disputed at the trial that the word "of" in the clause last above quoted, is an error and should read "to" (*supra*, p. 4). This is the way the clause reads in other bills of lading which were offered in evidence (Libellants' Exhibits 10 to 14; R. 1326 to 1330). Accordingly, we will discuss the case as though the clause read, "filling up only in ports on the way westwards to New York". The only witness who testified as to the meaning of this clause, testified without objection, that it meant that the steamer "has the privilege, after she leaves the port of Messina, to stop at any port on her regular route to New York, to take on extra cargo" (Gurge, R. 840, 841). This construction of the clause was so obviously correct that the petitioner's counsel withdrew the objection which he had previously made to the witness' testimony; and under these circumstances the respondents deemed it unnecessary to call any further experts on the subject.

The only question which remains, as to the interpretation of this clause, is whether it restricts the vessel's liberty in respect of bunkering. The lower courts took the view that, as the second printed clause quoted above, drew a distinction between filling up and bunkering, the written clause applied only to receiving cargo and left the vessel unrestricted in respect of bunkering (Opinion, R. 1379). We respectfully submit that this interpretation unduly limits the effect of the written clause. It is obvious that the written clause was intended as a drastic restriction of the very wide liberty of deviation granted by the printed provisions of the bills of lading. Instead of having the privilege of proceeding to any port reasonably adjacent to the trans-Atlantic route, the shipowner agreed that the vessel should make a direct voyage to New York, subject only to completing her cargo at ports along the regular route to New York. To hold that the vessel still had the privilege of going to any port in the North Atlantic for bunkers, is to defeat the obvious purpose of the written clause. It is true that the written clause says nothing about bunkers, but this can hardly have been deemed necessary, as it is almost unheard of for a vessel to go far out of her route for the purpose of obtaining bunkers. We submit that the written clause was intended to supersede the printed clauses dealing with deviation, and was intended to constitute a new and complete agreement on this subject.

That such a written clause will override the printed provisions in a document of this character is, of course, too well settled to require argument.

> "It is a well settled rule of law that if there is a repugnancy between the printed and the

written provisions of the contract, the writing will prevail. It is presumed to express the specific intention of the parties. *Hagan* v. *Scottish Insurance Co.*, 186 U. S. 423."

Thomas v. *Taggart*, 209 U. S. 385 at page 389.

Even giving the written clause the narrow interpretation placed upon it by the lower courts, however, the record shows that the *Willdomino* was guilty of at least two distinct and unjustified deviations from the voyage provided for in the bills of lading.

(1) The *Willdomino* deviated on the voyage from Ponta Delgada to North Sydney in not following the direct route; the uncontradicted testimony of the officers of the *Willdomino* establishes that they followed the course to New York for several days and then changed their course for North Sydney.

We have already pointed out that the *Willdomino* left Ponta Delgada with a supply of fuel wholly inadequate to carry her to New York. Furthermore, the supply of fuel was so grossly inadequate that it is impossible to assume that the navigators of the vessel ever had any real expectation of reaching New York without calling at North Sydney for bunkers (*supra*, pp. 18 to 28). From these facts, which have been mathematically demonstrated on the testimony of petitioner's own witnesses, it necessarily follows that the voyage on which the vessel sailed from Ponta Delgada was really a voyage to North Sydney. Instead of prosecuting the voyage to North Sydney by the usual route, however, the master of

the vessel testifies that he proceeded for a considerable distance on the direct route to New York and then altered his course to proceed toward North Sydney (*supra*, pp. 30, 31). This was a clear deviation, even if the vessel had the right to proceed to North Sydney. Assuming that the bills of lading, even as modified by the written clause, permitted the vessel to call at any port she chose for bunkers, she was still bound to proceed to any such port by the most direct and usual route. There is nothing in the bills of lading which even suggests that the vessel had the privilege of wandering about in the North Atlantic heading first for one port and then for another.

> "In the law maritime a deviation is defined as a 'voluntary departure without necessity, or any reasonable cause, from the regular and usual course of the ship insured' (1 Bouvier's Law Dict. 417; *Hostetter* v. *Park*, 137 U. S. 30, 40; *Davis* v. *Garrett*, 6 Bing. 716; *Williams* v. *Grant*, 1 Connecticut, 487); as, for instance, where a ship bound from New York to Norwich, Conn., went outside of Long Island, and lost her cargo in a storm (*Crosby* v. *Fitch*, 12 Conn. 410); or where a carrier is guilty of unnecessary delay in pursuing a voyage, or in the transportation of goods by rail (*Michaels* v. *N. Y. Central Railroad*, 30 N. Y. 564)."
>
> *Constable* v. *National Steamship Co.*, 154 U. S. 51, at page 66.

"A deviation is defined to be 'a voluntary departure, without necessity or reasonable cause, from the regular and usual course' of a voyage, in reference to the terms of a policy of marine insurance; but it is no deviation, in respect to

such a voyage, to touch and stay at a port out of its course, if such departure is within the usage of the trade."

* * * * * * * *

"The same doctrine is applicable in the case of a bill of lading, even though the usage be not known to the particular shipper, if it be established as a general usage."

Hostetter v. *Park*, 137 U. S. 30, at page 40.

"The voyage must be prosecuted without unnecessary delay or deviation. The shipowner's undertaking is that he will be diligent in carrying the goods on the agreed voyage, and will do so directly, without any unnecessary deviation."

Carver on Carriage of Goods by Sea, 6th Edition, page 393.

"A deviation is a voluntary departure without necessity or reasonable cause from the prescribed or usual course of the voyage or of the manner of performing it."

26 Cyc., at page 625.

"Deviation in the law of marine insurance is generally defined to be a voluntary departure, without necessity or reasonable cause, from the regular and usual course of the voyage insured."

* * * * * * * *

"There is an implied condition in every policy of marine insurance that the voyage shall be commenced and pursued throughout with all convenient expedition, and dispatch, and by following the shortest, safest, and most usual route."

9 American and English Encyclopedia of Law, at pages 419 and 421.

In the lower courts the petitioner sought to justify the course which was actually followed, on the ground that the vessel only headed for North Sydney in the emergency created by the shortage of fuel. This excuse might be perfectly good if the vessel had left Ponta Delgada with a supply of fuel reasonably sufficient to enable her to reach New York. No such excuse is available, however, in the face of the fact that the vessel, in compliance with the owners' express instructions, left Ponta Delgada *with barely sufficient fuel to reach North Sydney.* In view of this fact it is readily apparent that the voyage toward New York was a mere pretense. For some one of a number of reasons which may be suggested, the petitioner evidently preferred to have the vessel sail in the first instance for New York, although fully intending to have her put into North Sydney. In this connection we call attention to the fact that the vessel was in daily wireless communication with the owners (Harrisworth, R. 416).

The claimant does not suggest that it ever modified the instructions given to the master of the *Willdomino* at Gibraltar. On the contrary, the evidence of the master and chief engineer of the steamer, taken together with the testimony of Williams, the president of the petitioner, lead inevitably to the conclusion that the *Willdomino* did exactly what her owners wanted her to do. Whether this be so or not, she did exactly what they told her to do. It follows that the vessel's erratic course from Ponta Delgada to North Sydney is directly chargeable to the owners themselves, and that they are responsible for the deviation from the direct route between Ponta Delgada and North Sydney. We have already pointed out that if the vessel had taken the proper and customary supply of fuel for the voyage from Ponta

Delgada to North Sydney and had then proceeded to North Sydney by the most direct route, the stranding would never have occurred (*supra*, pp. 33, 34). Accordingly, we submit that the deviation of the vessel on her voyage from Ponta Delgada to North Sydney was a very serious breach of the contract of affreightment and is, in itself, sufficient to render the claimant liable as an insurer.

Since the petitioner's brief was printed, respondents' counsel have received certain *errata* to be inserted on pages 7 and 15, together with copies of a chart on which the petitioner has traced the course of the *Willdomino* from Lisbon to North Sydney. While we do not challenge the accuracy of the tracings on this chart, we disagree with some of the conclusions drawn from them by the petitioner. This Court will undoubtedly appreciate how misleading it is to project the course of a vessel on a flat surface. The result is analogous to the results produced on ordinary maps of the world, which enormously exaggerate the relative size of the far northern countries.

One would naturally suppose that the course between any two ports would be a straight line from one to the other, but this is not true when the course is projected on a flat surface. Accordingly, we respectfully submit that this Court cannot determine, from the examination of an ordinary chart, to what port the *Willdomino* was bound at any given time. As a matter of fact, she was never on a course which, if projected on the petitioner's chart, would lead to North Sydney. The petitioner's chart is chiefly valuable for the graphic way in which it shows the radical change of course which it was necessary for the vessel to make when she headed for

North Sydney. It shows clearly that the vessel's previous course was not the direct course for North Sydney, and we understand the petitioner, in its *errata*, now concedes this. The fact is, however, that the question what is the proper course from one port to another is a question upon which only an expert navigator is qualified to pass. The only testimony in the record on this subject is the testimony of the master of the *Willdomino*, who has testified positively that he followed the course to New York at all times, excepting when he turned south to Ponta Delgada on account of engine trouble, and after he turned north to put into North Sydney on or about July 16th. Furthermore, he testified specifically that if he had intended to proceed from Ponta Delgada direct to North Sydney, he would have followed a different course and, specifically, would have gone north of Fayal (*supra*, pp. 30, 31), which, as petitioner's chart shows, he did not do. The other passage which the petitioner cites from his testimony (R. 313), does not contradict the passage cited above but merely asserts that the change of course was slight. The Court can readily judge from petitioner's chart whether the change was slight or, as we contend, very material. In its *errata* petitioner suggests that the master was holding a southerly course on account of icebergs. Not only is this suggestion wholly unsupported by any testimony in the record, but it is flatly opposed to the master's testimony. Having put in its evidence on one theory, we submit that it is now too late for the petitioner to urge another theory which is opposed to its evidence and is supported only by argument of counsel. We think that this Court may almost take judicial notice of the fact that the middle of July is not a dangerous season for icebergs.

Both this statement and a number of petitioner's other statements as to the significance of the courses followed by the *Willdomino* are contrary to common knowledge and contrary also to the testimony of the master of the *Willdomino*. We respectfully submit that the testimony of the master must control.

If, however, this Court is disposed to go outside the record in considering the courses of the *Willdomino*, it is important that it should have before it complete and accurate information on the subject. Such information is readily available in official publications. For example, Chart No. 1280, published by the United States Hydrographic Office, supplies a method of plotting the Great Circle courses between any two points. It also states (if any authority were needed on the point) that the Great Circle course is the shortest distance between any two points. Using this chart (H. O. 1280), we have traced the Great Circle course between Ponta Delgada and Sydney and the Great Circle course between Ponta Delgada and New York, and have projected them on a copy of the petitioner's chart (H. O. 1070) together with the actual course of the *Willdomino*. On examination of this chart, which we have attached to this brief as an appendix, the Court will note that the actual course of the *Willdomino* was not between the Great Circle courses for New York and North Sydney, as suggested by the petitioner, but was actually south of both, although it is very close to the Great Circle course to New York.

We have also shown the vessel's course on leaving Lisbon, and a section of the Great Circle course from Lisbon to New York, from which the Court will note that the *Willdomino* left Lisbon on a course substantially south of the Great Circle course to New York.

Of course, when projected on a flat surface, a Great Circle course, although the shortest distance between two points, appears as a curve. With this point in mind, the Court will note that when the *Willdomino's* course was changed on the 16th of July, she did follow, thereafter, substantially the Great Circle course from the point of deviation to North Sydney. It is obvious that she had not been making for North Sydney before that date.

We are filing with the Clerk of the Court a copy of Chart H. O. 1280; and also a copy of Reid's Tables of Distances, which has been referred to in the briefs of both parties.

(2) In proceeding to North Sydney instead of to New York direct, the *Willdomino* would have been guilty of an unjustified deviation, even if she had proceeded from Ponta Delgada to North Sydney by the most direct route.

We have pointed out above that the *Willdomino*, after leaving Ponta Delgada, followed the route to New York for several days and then headed for North Sydney. The purpose of our present argument is to point out that even if the vessel had taken the most direct route to North Sydney, without any pretense of sailing for New York, she would still have been guilty of an unjustifiable deviation from the voyage specified in the bills of lading. Our basis for this argument is that the steamer did not go to North Sydney for bunkers to carry her to New York but for bunkers to be used on her return voyage to Europe. It is true that the witness, Williams, president of the petitioner, would not admit this in so many words,

but it is perfectly clear both from his testimony and from the undisputed facts of the case. Indeed, a glance at any map showing both shores of the North Atlantic will show how absurd it would be for a vessel proceeding from a Mediterranean port to New York, to stop at North Sydney or any other Canadian port for bunkers to carry her to New York. The inference to be drawn from the map is confirmed by the record.

The prices of coal at the various ports involved were as follows:

Gibraltar, $27.00 to $30.00, according to a disinterested witness called as an expert by the libellants (Gurge, R. 841); or $30.00 to $40.00 according to the witness, Williams (R. 857).

Ponta Delgada, 8 pounds 15 shillings, or say $33.00 (Beeby, R. 348; Williams, R. 858).

North Sydney, $13.00, according to Beeby (R. 348); $7.00 to $9.00 according to Williams (Canadian money value, R. 857).

New York, $17.00 to $23.00 according to libellant's expert Gurge (R. 842).

On the foregoing testimony we believe that the following prices may be adopted as fairly correct:

Gibraltar	$30.00
Ponta Delgada	33.00
North Sydney	10.00
New York	20.00

We have already pointed out that if the *Willdomino* had taken on board 250 tons of additional coal at Ponta Delgada she would have been seaworthy to proceed direct to New York. The difference between the cost of this coal at Ponta Delgada and North Sydney would have been, say $23.00 per ton or $5,750.00. The additional distance which the vessel had to steam by reason of going to North Sydney was estimated at 500 miles by libellants' expert, McNaught (R. 811) and at 300 to 400 miles by Williams, the president of the petitioner (R. 860).

Taking the lowest figures given by Williams himself, it would take the vessel (going 6½ miles per hour and burning 50 tons of coal a day) at least two days to steam this additional distance. The witness Williams stated that the *Willdomino* was worth $4,200 a day to the claimant company (R. 227). Accordingly, the value of the time lost in going into North Sydney would be $8,400. In addition, the vessel would burn an additional 100 tons of coal during these two days, which, even at the North Sydney price, would cost $1,000. Accordingly we have an expense of $9,400 for the purpose of saving $5,750.

On the other hand, if the *Willdomino* went to North Sydney for the purpose of obtaining bunkers to be used on her next outward voyage from New York, a considerable saving would be effected. The *Willdomino's* bunkers had a capacity of 1,450 tons (Williams, R. 234). Accordingly, if the bunkers were filled at North Sydney at a price of $10 per ton less than the New York price,

there would be a net saving of $8,250, made up as follows:

Saving on 250 tons of coal between Ponta Delgada and North Sydney price....	$ 5,750.00
Saving on say 1,200 tons of coal with which vessel would reach New York, as between North Sydney and New York price	12,000.00
Total	17,750.00
Less expenses as figured above	9,500.00
Net saving	$ 8,250.00.

The petitioner's own testimony, however, shows that one of their principal reasons, if not the controlling reason, for having the vessel coal at North Sydney, was that there was difficulty, at this time, in obtaining bunkers for foreign vessels in American ports. The witness Williams, president of the petitioner, refers to this point repeatedly. He testified as follows:

> "Q. But did you give your master standing orders to coal at Sydney? A. I don't know as he had standing orders. We have made it a sort of practice to coal at North Sydney; as I recall it, along about that period we were having great difficulty in getting ship's bunkers on the Atlantic Coast of the United States, as you know in those days there were many embargoes on coal, and so on" (R. 71, 72).

He repeated this same statement in varying forms at least half a dozen times (See, for example, R. 74, 235, 854,

855, 858, 859). Indeed, this point was so thoroughly impressed on everybody at the trial that the learned District Judge embodied it in his opinion, as follows:

> "The *Willdomino* was a British ship and at the time in question there were restrictions upon the supplying of bunkers to foreign ships on the Atlantic coast of the United States. The claimant had been obtaining its bunkers at Sydney and Halifax" (R. 1388):

Curiously enough, both the petitioner and the learned District Judge appear to have overlooked the fact that the difficulty of obtaining bunkers in American ports had nothing to do with the westward voyage. Any embargo or coal shortage in the United States would be material only in connection with the vessel's next outward voyage, with which these libellants had no concern. The importance of this point appears to have dawned upon the petitioner in the later stages of the trial. Early in the trial the witness Williams, president of the petitioner, testified as follows:

> "Q. Did you anticipate that when the vessel sailed from Ponta Delgada that she would go to Sydney and there take on approximately 1,400 tons of coal? A. No. We may have given him orders to proceed to the nearest coal port, which would have been North Sydney from Ponta Delgada.
>
> Q. If he could have gotten it there, was it the duty of the master when he got to Sydney to fill up his bunkers with coal there?
>
> Mr. Sprague: I object to that question as to what the duty of the master was.

The Court: I will permit it.

A. *It might be considered his duty, but since we were able to get in touch with North Sydney we would have given the instructions*" (R. 234, 235).

Near the end of the trial he evidently realized the danger of even this very guarded admission, for he qualified this testimony as far as it was possible for him to do, in view of what he had already said. His later testimony was as follows:

"Q. When you sent this cable to your master directing him to go to Sydney, didn't you intend that he should at North Sydney take on bunkers for the return trip to Europe? A. No, sir. *We hadn't any voyage fixed.*

Q. Well, for the next trip that this vessel should make to sea? A. No, sir.

Q. You didn't intend that he should take on enough coal to go to sea again? A. *No, sir, hadn't any next voyage in mind.*

Q. Did you intend that he should take on enough coal at North Sydney to coal some other ship of yours from an Atlantic port to sail? A. No, sir.

Q. Now, that is exactly what the *Willdomino* had done on the preceding trip, wasn't it? A. *After we arrived at North Sydney, we did that, yes*" (R. 862).

We have italicized the portions of the witness, Williams' testimony which seem to us to show clearly his purpose to evade the issue and take refuge in that fact that no orders had actually been given to the *Willdomino* to fill her bunkers at North Sydney, and that the vessel's

next voyage had not yet been actually fixed. We submit that it is perfectly plain from his testimony that the whole purpose of sending the vessel in to North Sydney was to procure bunkers for her next voyage from the United States, and that instructions to this effect, although they had not yet been actually given, would certainly have been given when the vessel reached North Sydney, if it had not been for the labor troubles which existed there. These troubles made it necessary to divert the vessel to Halifax, where the bunkers would undoubtedly have been filled, but for the stranding. If this were not so, all of Williams' testimony about the difficulty of obtaining bunkers in American ports would be meaningless.

Once it is established that the purpose of going to North Sydney was to procure bunkers for the next voyage, the voyage to that port becomes an unjustified deviation.

In the first place, it is settled that even the wide liberties granted by the printed clauses in claimant's bills of lading, will be construed as applying only to matters connected with the voyage for which the bill of lading is issued. In *Austrian, etc., Co.* v. *Calafiore*, 194 Fed. Rep. 377, a steamer which had the same wide liberties which the *Willdomino* would have had, if her printed bills of lading had not been modified by the written clause, was proceeding from Mediterranean ports to New Orleans. She stopped at Tampa to take on some cargo which was to be carried back to the Mediterranean on her return voyage. The Circuit Court of Appeals for the 5th Circuit said that, notwithstanding the wide liberties granted by the bills of lading, the ship was

guilty of an unjustified deviation because the stop at Tampa had nothing to do with the westward voyage. In the course of its opinion, the Court said (at p. 378):

> "The reservation in the bill of lading on which the claimant relies to relieve itself from liability for delay and detention at Tampa must be construed with reference to the voyage in contemplation of the shipowner and the shippers at the time the bill of lading was issued, and therefore be restricted in allowing deviation to the business and necessities of the ship pertaining to that voyage. See *Swift* v. *Furness, Withy & Co.*, 87 Fed. 345; *Liverpool Steamship Co.* v. *Phoenix Ins. Co.*, 129 U. S. 441, 9 Sup. Ct. 469, 32 L. Ed. 788; *Pacific Coast Co.* v. *Yukon Independent Transport Co*, 155 Fed. 35, 83 C. C. A. 625; *Leduc* v. *Wood*, 20 Q. B. D. 482; *Glynn* v. *Margretson* (Appeal Cases) L. R. 1893, page 355."

This principle is precisely applicable to the present case.

Furthermore, coal which is not intended to be used on the pending voyage cannot properly be referred to as "bunkers"; so far as the pending voyage is concerned, such coal is a part of the cargo. Accordingly, in taking on coal for her next voyage, the *Willdomino* would not have been bunkering, but would have been "filling up" within the meaning of the written clause on the bills of lading.

Respondents proved by uncontradicted evidence that neither North Sydney nor Halifax was a customary coaling port for vessels proceeding from Mediterranean ports to New York (Jeffcott, R. 799, 800; McNaught, R. 808, 809; Gurge, R. 841).

The only evidence to the contrary is that of the witness Williams, who merely stated "We have made it a sort of practice to coal at North Sydney". Even this statement appeared to have a very meagre foundation, as it only appeared definitely that the *Willdomino* had stopped at North Sydney on one previous occasion, at which time she was in ballast and no cargo interests were involved (Williams, R. 862, 863). But, however this may be, a "sort of practice" of the petitioner falls far short of establishing a general custom.

It was not even suggested that either North Sydney or Halifax was a port where it was customary for vessels proceeding from Mediterranean ports to New York to take on cargo. Libellant's expert Hayward testified as follows:

> "Q. Now, then, is the port of Sydney, Cape Breton on the usual and customary route taken by vessels from Mediterranean ports to New York? A. No, sir" (R. 837).

No attempt was made to contradict this testimony.

The petitioner suggests that the question whether the *Willdomino* went to North Sydney to obtain bunkers for a succeeding voyage, was not raised in the trial Court. This argument is sufficiently answered by the testimony quoted on pages 27 to 30 of the petitioner's brief, which shows that this point was gone into very carefully. It is the fact also that this point was fully argued in the trial Court, although this fact, of course, does not appear in the record. This point was also the subject of one of the assignments of error on which the appeal was taken (R. 1395).

Perhaps the best answer to petitioner's argument on this point is that it was only after the decision of the Circuit Court of Appeals was filed that the petitioner first suggested that it had been taken by surprise on this issue. In view of the fact that the point was fully argued and briefed in the Circuit Court of Appeals, we respectfully submit that it is too late now for the petitioner to suggest that this issue was not properly before that court.

The libel in this case was in the usual form, which, for generations has been held sufficient (*Clark* v. *Barnwell*, 12 How. 272; *The Folmina*, 212 U. S. 354, at p. 361); and the question of deviation arose in the course of the petitioner's defense at the trial. If the petitioner considered that the issue was not within the pleadings, this point should have been raised in the trial Court or, at latest, in the Circuit Court of Appeals.

The cases cited by the petitioner (Petitioner's Brief, pp. 24 and 25) of voyages which have no definite beginning or end, have no bearing on the present case. In the trade referred to, it is customary for vessels to load and discharge at various American ports and such a custom fully protects the shipowner, for it is presumed to be known to the shipper. Furthermore, it is to be assumed that vessels which follow this course have not inserted in their bills of lading any restriction on the wide liberties granted in the usual deviation clause, as was done here by the written clause with respect to "filling up". In the present case the call at North Sydney violated equally the custom of the trade and the contract of affreightment.

The distinction between a deviation and a mere intention to deviate clearly has no bearing on the present case. The deviation in this case was fully con-

summated when the *Willdomino* put into Sydney. No case has ever suggested that the purpose for which a vessel puts into a port is not to be considered in determining whether her calling at such port is a deviation. Calling at a port for an improper purpose is a deviation, and the deviation is consummated the moment the vessel changes her course for the purpose of proceeding to such port, irrespective of whether or not the improper purpose is ever in fact carried out. The decision of the Circuit Court of Appeals on this point is clearly correct.

(3) In view of the unjustified deviations of the *Willdomino* from the voyage provided for in the bills of lading, the petitioner is not only rendered liable for all damages resulting from the stranding, but is deprived of any protection under the bill of lading clause limiting its liability to $100 per package.

This has recently been decided by this Court and by the Circuit Court of Appeals for the Second Circuit.

The St. Johns, 263 U. S. 119;
The Sarnia, 278 Fed. Rep. 459;
Niles-Bement-Pond Co. v. *Dampkiesaktieselskabet Balto, et al.*, 282 Fed. Rep. 235.

POINT IV.

As found by the Circuit Court of Appeals, the petitioner is liable, irrespective of unseaworthiness or deviation, because of its gross neglect to care for and preserve the respondents' cargo after the disaster.

(a) *The authorities.*

The law on this point has been clearly laid down by this Court in *The Niagara* v. *Cordes*, 21 How. 7, 16 L. Ed. 41, wherein Mr. Justice Clifford said (at p. 26 of 21 Howard):

> "Duties remain to be performed by the owner, or the master as the agent of the owner, after the vessel is wrecked or disabled, and after he has ascertained that he can neither procure another vessel nor repair his own, and those, too, of a very important character, arising immediately out of his original undertaking to carry the goods safely, to their place of destination. His obligation to take all possible care of the goods still continues, and is by no means discharged or lessened, while it appears that the goods have not perished with the wreck, and certainly not where, as in this case, the vessel is only stranded on the beach. Such disasters are of frequent occurrence along the seacoast in certain seasons of the year, as well as on the lakes, and it cannot for a moment be admitted that the duties and liabilities of a carrier or master are varied or in any manner lessened, by the happening of such an event. Safe custody is as much the duty of a carrier as con-

> veyance and delivery; and when he is unable to carry the goods forward to their place of destination, from causes which he did not produce, and over which he has no control, as by the stranding of the vessel, he is still bound by the original obligation to take all possible care of the goods, and is responsible for every loss or injury which might have been prevented by human foresight, skill and prudence."

At the conclusion of the opinion the Court says:

> "At that time (when the master deserted his vessel on the beach) the goods had not received any considerable injury, and most of them, in all probability, none whatever. Prompt attention would have saved the property and protected the shipper from loss. It must not be understood that a master can abandon his ship and cargo upon any such grounds as are proved by the evidence in this case, or, indeed, upon any other, so far as the goods are concerned, when it is practicable for human exertions, skill and prudence, to save them from the impending peril" (p. 35 of 21 Howard—words enclosed in parenthesis are ours).

The last citation of *The Niagara* case by this Court was in *The Jason*, 225 U. S. 32, 56 L. Ed. 969, where Mr. Justice Clifford's decision is cited with approval, as is also the decision in *The Maggie Hammond*, 9 Wall. 435, 458; 19 L. Ed. 772, 780, which holds "that when the vessel is wrecked or otherwise disabled in the course of the voyage, and cannot be repaired without too great delay and expense, it is the duty of the master to transship the goods and send them forward, if another vessel can

be had in the same or a contiguous port or within a reasonable distance, and that upon so doing he is entitled to charge the goods with the increased freight arising from the hire of the vessel so procured."

The rule laid down in the *Niagara* case is not changed or qualified in any way by the Harter Act, which specifically provides that the shipowner cannot in any way exempt himself from liability for any negligence or fault in connection with the custody, care or proper delivery of the merchandise entrusted to him. The Harter Act (Act of February 13, 1893, Sections 1, 2 and 3).

(b) *Time consumed before removing this cargo.*

It is undisputed that the *Willdomino* struck a reef off Cape Canso at 6:30 A. M., July 24, 1920; that she reached Halifax at 2:12 A. M., July 27th; left Halifax for New York under tow at 9:10 A. M., August 3rd; anchored in New York Bay at 8:20 A. M., August 7th, and made fast to Pier C, Jersey City, at 10 A. M., August 9th, 1920. The above facts all appear in the Log of the ship, Exhibit E-3 (R. 1073 to 1089). None of the citrate of lime was tendered to either libellant until the following letter was written by the Williams Steamship Company, petitioner's agent, to the Citro Chemical Co.:

"October 2nd, 1920.

Citro Chemical Co.,
Maywood, N. J.

Gentlemen:

You will please take notice that 168 casks of Citrate of Lime, which arrived on the steamship *Willdomino* from Messina, consigned to Messrs.

Goldman, Sacks & Co., and said to be the property of Citro Chemical Company of Maywood, N. J., is now on board the said steamship at Tietjen & Lang's Dry Dock, 17th Street and Park Avenue, Hoboken, N. J., and that we are now ready to deliver same.

You are hereby notified to place your lighter alongside said steamer Tuesday morning at nine o'clock for this purpose.

Yours very truly,

WILLIAMS STEAMSHIP COMPANY, INC.,
PAUL A. DWYER" (R. 1324).

Libellant replied October 4, 1920:

"We have had this shipment carefully examined and find that it is absolutely worthless by reason of the damage which it sustained while in your custody. Accordingly, we abandon it to you and decline to take delivery of it" (R. 1325).

The libellant Citro Chemical Company filed its libel October 6, 1920, four days after the letter above quoted was written by Williams Steamship Company (R. 1).

Pfizer & Company filed its libel October 1, 1920, which was before the steamship was apparently ready to make delivery (judging from the letter to Citro Chemical Company of October 2nd, p. 22).

As a matter of fact the cargo was not ready for delivery when the letter of October 2nd was written. Mr. Thirkell, the First Officer of the vessel, whose testimony was taken by petitioner October 8, 1920, testified (R. 378):

"Q. Those casks have been and are being discharged at the present time, aren't they? A. At the present time, yes.

Q. On lighters? A. Yes."

The Second Officer of the vessel, whose testimony was also taken on October 8th, testified (R. 394) that the vessel was at that time still discharging the casks of Citrate of Lime.

We refer to the above testimony of the First and Second Officers because Capt. Beeby had testified previously:

"Q. Was the cargo of citrate of lime discharged from the ship as soon as it could possibly have been discharged, practicably discharged, in your opinion? A. Yes" (R. 357).

The cargoes had not even been discharged at the time the libels were filed, ten weeks after the vessel stranded.

(c) *Condition of cargo when respondents learned of the damage.*

Mr. Haffey, Traffic Manager of Charles Pfizer & Company, testified that he kept telephoning the Williams Steamship Company for information about the *Willdomino*, and they told him that the delay was caused by her going to Halifax and that she would be down shortly; that he telephoned again August 7th, the day the ship arrived, but they did not then tell him that she had been damaged. Mr. Haffey went on his vacation August 9th, but before leaving gave instructions to make

entry in the Customs House. Such entry was made that day and his Company paid the duty on the Pfizer shipment amounting to $4,446.92 (R. 673). When Mr. Haffey returned from his vacation, August 23rd, he found his Company had not received the Citrate. He looked up the vessel, found her at 134th Street and North River, went aboard and saw the Citrate of Lime in No. 1 Hold with water not entirely covering the top tier and the rest under water (R. 674). This was the first time he had any knowledge that his cargo had been damaged (R. 675). He said the first date the shipment was tendered to him was October 2nd or 4th (R. 676). No delivery was offered prior to that time. He made several trips to the steamship's office between August 23rd and October 2nd or 4th. Mr. Haffey went on board the vessel when she was at Tietjen & Lang's Dry Dock, in September. He says:

> "When I went aboard it was somewheres on top of the deck, scattered all over, there was several casks on the deck and there was quite a number visible in the lower part of the hold" (R. 676).

Mr. Haffey says that when he went aboard the ship at Hoboken, in September, he noticed the smell of the Citrate of Lime. He says:

> "As near as I can I will say I never smelled anything like it before or since; it was simply disgusting, so much so that I lost my appetite for lunch twice, when I did smell it" (R. 677).

He said that Citrate of Lime should not smell like that: that the Citrate of Lime, at that time, several weeks

after August 23rd, was not fit to be carted to his factory (R. 678). On August 23rd, when first he saw the open hatch and the tiers in the hold Mr. Haffey did not notice that odor (R. 678). Citrate of Lime, Mr. Haffey said, is a food product and is also used for medicinal purposes (R. 679).

Mr. Haffey's testimony makes it entirely clear that his Company did not know of the condition of the Citrate of Lime until August 23rd.

The postal card notice sent by the Steamship Company to Goldman, Sacks & Co., consignee of the Citro Chemical Company shipment (Exhibit 9, R. 888) said:

> "Please remove the merchandise promptly noting that all goods remain on pier at your risk and expense, and that same may be stored, also at your risk and expense, unless removed within three days after entry of steamer.
>
> B/L No.....
>
> Freight £341-13-2."

Also the fact that the Williams Steamship Company sent a bill to the Citro Chemical Company August 14, 1920, for $1,350.93 freight, which this respondent promptly paid and received a delivery receipt dated August 16th, is further proof that it did not know of the condition of the cargo at that time.

Exhibits L-6 and L-7 (R. 1322, 1323), show that the Williams Steamship Company deliberately deceived the Citro Chemical Company in not advising it of the damage, and in collecting the freight on the representation that the merchandise was ready for delivery, giving

a delivery receipt calling for immediate delivery, and then not even offering delivery until October 2nd.

Mr. Bauer, Custom House Broker, of the firm of Hensel, Bruckmann & Lorbacher, made entry of the Citro Chemical Company's shipment in the Customs House, paid the duty amounting to $2,228.70, obtained a release from the Steamship Company and gave the papers to the truckman to get delivery. Mr. Bauer testified that when he paid the duty he had no knowledge that the shipment had been injured or damaged; that up to the time that he delivered the papers to Schafer, the truckman, he had no knowledge that the cargo had been even wet (R. 665).

Citro Chemical Company's truckman went to the Steamship *Willdomino* on August 17th, with his truck, to get the Citro Company's Citrate. The steamer was at Pier C, Jersey City. He had the freight release and delivery order which he presented to the delivery clerk. He did not get the merchandise because:

> "They told me the steamer had been damaged and was under water and the steamer would have to go to the drydock before the goods could come out of the ship" (R. 671).

When Citro Chemical Company learned of the damage to its cargo it wrote a letter on August 26th to Williams Steamship Company, saying:

> "There is a serious loss to our cargo of 168 casks of Citrate of Lime now aboard above steamer and we hereby lodge notice of claim upon you, her owners and charterers.
>
> Providing the present condition of the ma-

terial will warrant it, we will handle the shipment to best advantage and inform you, in due course of the final outturn and loss thereon" (Exhibit 12, R. 893).

The libellant Pfizer & Company wrote to Williams Steamship Company under date of September 2nd, 1920, saying:

> "Referring to the shipment of 335 casks of Citrate of Lime Ex. S. S. *Willdomino,* beg to state that from samples taken from about 40 casks out of this shipment it appears that these goods will be a total loss due to the fact that they have been in water for so long a period, and we hereby notify you that we reserve the right to file claim covering this damage which we shall do as soon as the goods are out of the steamer, *which we understand will not be for a week or more.* After a careful examination is made of the entire lot we will again take this matter up with you. We remain,
>
> Very truly yours,
>
> CHAS. PFIZER & CO., INC.,
> per CHARLES P. HAFFEY."

(Exhibit 11, R. 891).

One would think that after receiving such letters the steamship company would make every possible effort to remove the shipments, at least within the week specified. Instead, another month went by before a tender of delivery was made.

The letter written by the Citro Chemical Company to the claimant on August 26th shows its willingness to handle the shipment to best advantage (Exhibit

12, R. 893), as does the letter of Pfizer & Company to the claimant of September 2nd (Exhibit 11, R. 891).

What more, under the facts of this case, could the shippers have done? They could not get their cargo because the ship owners kept it from them. They could not even examine or get samples of the material until August 23rd and it took considerable time to have these analyzed. They did offer then to work whatever salvage there was out of the material in order to minimize loss.

(d) *Citrate of Lime deteriorates very slowly.*

Probably the most eminent chemist called in this case was Dr. Thomas H. Norton, who testified that Citrate of Lime is rather insoluble; it dissolves in warm water, one part in about 1,700; it is a little more insoluble in cold water; it is not a substance that is put in the list of soluble substances (R. 737).

Without going into a long quotation of his testimony, it is sufficient to say that it was to the effect that Citrate of Lime, once immersed in sea water, suffers little damage when first wet; that the damage is caused by fermentation; that the bacteria content, in order to do harm, must be combined either with air or more water, and that the longer the shipment remained under water and the more the water was changed, the more rapidly the material would disintegrate.

Dr. Norton also said that if the Citrate of Lime had been removed from the water it could have been processed by well known methods and a large part of its value saved.

> "I should say from familiarity with other citrates—other soluble citrates, that in the course

of three weeks anywhere from one up to four or five per cent. of the citric acid content might be affected" (R. 740).

This testimony indicates that if the material had been removed from the vessel within a week or two after she reached New York the loss would have been very small indeed.

Dr. Grunenberg, a graduate of Munich, who also studied at Zurich, Paris and Berlin, and who has his own laboratory in New York and is also associated with the Coblentz Laboratory, New York, testified that he had made a study of Citrate of Lime for many years; that it is highly insoluble; that he thought the only effect sea water would have on it would be contamination. He said first immersion in sea water would have little effect; fermentation would come with exposure to the air; the nourishment, the food for the bacteria, is found in the sea water; the subsequent immersions would have a very bad effect on the citric acid; they would help fermentation (R. 711). Each change of water, he says, would furnish new food for the bacteria. He also said that if the Citrate of Lime had been removed at Halifax and shipped to New York it could have been processed by well recognized methods either by fumigation or by centrifugation. His opinion was that 90% of the value of the Citrate of Lime could have been saved at Halifax (R. 712).

These experts were supported by Dr. Saarbruck, who had made experiments exposing citrate of lime to sea water. He found that the first immersion did little damage. Subsequent immersions and exposure to air caused rather rapid disintegration. After one week there was a

loss of 3% citric acid content; after two weeks 5% and after four weeks 7% (R. 753). After four weeks exposure to water the material showed moulds, real fermentation and formation of gases (R. 754).

(e) *The gross negligence of the ship in failing to care for the citrate of lime.*

(1) *At Halifax:*

The following important facts are not disputed anywhere in the record.

(I) Not an officer of the ship knew the nature, characteristics or value of Citrate of Lime.

(They knew there were 503 casks in the hold and the bill of lading provided that:

> "The value of package receipted for as above stated does not exceed the sum of One Hundred Dollars, unless otherwise stated herein" (Exhibit L-1, R. 1313).

Five Hundred and three casks at $100 each showed at least a value of $50,300).

Capt. Beeby thought Citrate of Lime would be damaged by being left in the hold under water for a length of time (R. 335).

The First Officer, Thirkell, thought Citrate of Lime spoiled immediately the water touched it. He said it was "just like slacked lime, ordinary lime or powder" (R. 376).

Surveyor Wilson was of the same opinion (R. 608).

This opinion was general at Halifax (R. 610).

Mr. Hensley, of Pickford & Black, admitted that he knew nothing about Citrate of Lime (R. 551).

On page 552 Hensley said:

> "My opinion was, no matter what the cargo was, it was best to get her to New York where they could handle it.
>
> Q. And what did you think of the condition of the cargo? A. Badly damaged" (R. 502).

Wilson, Surveyor for the London Salvage Association thought:

> "The best thing was to get her to New York *where there were dry docks and facilities for handling the cargo quickly*" (R. 601).

All of these gentlemen were called to survey the vessel by Pickford & Black, but absolutely no notification of any kind was given to either libellant, although the Master knew that the two libellants were the owners of the cargo, and no one even asked a pharmacist anything at all about Citrate of Lime.

It would seem that the first thought of any prudent master or ship owner or ship's representatives, under circumstances like this, would be to notify the owner of cargo and ask for help, or at least advice.

(H) The testimony makes it quite apparent that the master of the vessel did not tell the surveyors that the Citrate of Lime was in No. 1 Hold until he was about to leave port and be towed to New York.

Mr. Hall, Port Warden of Halifax, said that he knew from the cargo plans furnished by the Captain that No.

1 Hold was "supposed to be stowed full of cork" (R. 514):

> "Q. The cargo plan didn't give you that? A. It said No. 1 was full of cork."

Mr. Hull said:

> "I think we practically considered this citrate would be a total loss" (R. 516).

Claimant's Exhibit K (R. 1099), showing casks of Citrate of Lime in the bottom of No. 1 Hold, and cork on top of it, which was offered at page 365, was not the cargo plan that was used by the surveyors at Halifax. This is made clear by Mr. Hensley, the vessel's own agent at Halifax (R. 555).

He said:

> "Q. When the first survey was held you didn't know there was citrate in the bottom of the vessel? A. *Not on Monday; no particular attention was paid to it*" (R. 549).

The cargo plan they showed to Mr. Wilson when he made his survey (Exhibit Z, R. 1310) showed No. 1 Hold to have about 100 barrels of Lime Citrate on the bottom, had about half a hold full of bales of cork on top of that, sardines on top of the bales of cork, and embroideries, lemons, sardines, cork and dried fruit in No. 1 'tween decks. Wilson said he made Exhibit Z from the plan that was shown him (R. 573).

This indicates that there were two or more cargo plans used at Halifax, no one of which was correct.

Mr. Wilson, of London Salvage Association, on cross examination, said:

> "Q. You did not know at the time the vessel was in Halifax anything about the value of the citrate? At that time I am speaking of now? A. *No, we understood it was fairly valuable stuff*" (R. 609).

Wilson makes it clear "there was nobody there that represented this citrate of lime, no special representative" (R. 617).

(III) Every surveyor who was called into consultation at Halifax determined that the ship should be allowed to go forward to New York *to discharge cargo, drydock and make repairs.*

The Port Warden in his report said, taking into consideration the perishable nature of the cargo, and no dock being available, and after consultation with all parties interested,

> "I do certify that in my opinion the S. S. *Willdomino* of Halifax is in a fit and seaworthy condition to proceed to New York, *and on discharge of cargo to be drydocked for further examination and repairs*" (Exhibit X, R. 1296).

The report of Mr. Wilson for the London Salvage Association shows the following:

> "No. 1 hold (loaded bale cork).
>
> * * * * * * * *
>
> A joint conference was then held amongst representatives of the various interests, including

> Capt. Gilboy for owners, and following course jointly decided upon, *principally with view to save time*" (Exhibit Y, R. 1298-1301).

A telegram from Pickford & Black to the Williams Steamship Company, New York, shows that the day the vessel arrived in Halifax "surveyors suggest sealing hatches in number one hold and blowing the water out with compressed air which would enable her to proceed to New York" (Libellant's Exhibit 15, R. 1336).

Capt. Gilboy, Port Superintendent of the Williams Steamship Company, was sent from New York to Halifax to take care of the situation. He conferred with the surveyors and on July 28th telegraphed Williams Steamship Company, New York, as follows:

> "Ship at pier shifting cargo to afterholds also figure placing about six hundred tons sand on afterdeck to bring ship even keel. *This will take entire cargo and eliminate air proposition number one hold*" (R. 1337).

Had the water been blown out of No. 1 Hold in the manner first suggested by the surveyors, it is manifest that the cargo would have been kept as dry as possible until she reached New York Harbor where it could have been unloaded, and it would not have been taken out of the water when the ballast was put on the stern and reimmersed off New York when the ballast was thrown off. The action taken on Gilboy's insistence was the most harmful that could have been taken for the cargo.

That Gilboy controlled the situation is clearly indicated by the testimony:

> "Q. What was done here generally in connection with this ship was done under Captain Gilboy's orders and not yours? A. Yes, we all agreed on it; he was owners' representative here.
>
> Q. He came up specially for this case? A. Yes" (Hensley, R. 557).

Mr. Hensley, a Director of Pickford & Black, the ship's agents at Halifax and also agents for Lloyds at Halifax, testified that in the first instance he did not know there was anything but cork in the hold (R. 559).

This was probably the reason for the surveyors agreeing to put the ballast on the stern and raise the bow. The corkwood in the hold under water would not seriously bear the ship down by the head and, if anything, would have helped to buoy up the bow. The reports of the various surveyors made at Halifax all show that they all thought the hold contained nothing but cork.

When Hensley did learn there was Citrate of Lime in No. 1 Hold, he said:

> "I understood there was only 100 barrels, but I don't know if that is correct" (R. 561).

Mr. Hensley thought that the master was the one who told him that there was only corkwood in No. 1 (R. 561).

Mr. Hensley also said that he and the surveyors were of the opinion that the ship could be discharged as soon as she arrived at New York and then dry docked (R. 556).

Surveyor Moon of Lloyds Register of Shipping said:

> "It was a question that the ship be allowed to proceed to New York to discharge and be docked there and I allowed them to do that with certain recommendations as to shoring up bulkheads to make it safe" (R. 534).

(IV) At Halifax, had it not been for these representations of the master that No. 1 Hold was full of cork, it is quite apparent that over half of the cargo of Citrate of Lime would have been saved. It must be remembered that Capt. Beeby made no attempt to notify the consignees of the damage (R. 335), and that nobody at Halifax purported to represent the Citrate of Lime (R. 335).

All of the witnesses admit that the Citrate of Lime could have been unloaded at Halifax with divers (Capt. Beeby, R. 356; Brockwell, Second Officer, R. 393). It is unnecessary to quote all the others, but they all agree on this point.

The height of each cask was four feet (Capt. Beeby, R. 458). The casks were stored in four tiers with dunnage wood between each tier. Since each cask was four feet high and there were four tiers (R. 357, 358), with dunnage under each, the top of the upper tier was some twenty feet from the floor of the hold (Capt. Beeby, R. 339). The water in No. 1 Hold after the vessel struck was 19.6 forward (R. 338). After the ballast was placed on the stern of the vessel at Halifax the depth of water in the hold was 15 feet (R. 339).

The testimony indicates that the top tier of casks of Citrate of Lime was only partly submerged before the vessel reached Halifax, and when the ballast was

put on the stern the top tier of casks came entirely out of water and the third tier was partly out of water.

That this is the fact is not only deduced from the testimony of Capt. Beeby above mentioned, but is positively stated as a fact by Mr. Brockwell, the Second Officer. He says the casks when they came on board were in good condition; that they were large casks (R. 387). He saw the casks when the cargo in the 'tween docks was being removed at Halifax, and before the ballast was placed on the stern.

> "Q. Did you go into No. 1 Hold while you were taking this out (cargo from the 'tween decks)? A. Yes, I was down in No. 1 and you could see the water down in the center.
>
> Q. How far was the water up in the hold? A. The water was keeping its level, it was going down as the ship was coming up, it was well in the hold when I first saw it.
>
> Q. Did you see the casks? A. Saw some of the casks down between the sides of the cork.
>
> Q. The casks above the water or underneath the water? A. Underneath the water.
>
> Q. All of them? A. No, some of them had come up above the water, being as the tanks had been pumped out in the forward end so the casks had been wet.
>
> Q. Did you take out all the cork in No. 1 hold? A. No, all of it was not taken out because some of it was wet, it was jammed up.
>
> Q. Could you have discharged the casks at Halifax? A. Not without a diver" (R. 392).

Mr. Brockwell also saw the casks after the ship arrived in New York when they were discharging the rest of the cargo.

"Q. Were they then under the water or above? A. Some of them were under water" (R. 394).

On cross examination Mr. Brockwell said that when he saw the casks partly out of water at Halifax they had just started putting the ballast on. At that time he could look down between the bales of cork and could see certain of the casks.

"Q. When did you go down, was that while they were shifting cargo? A. That was after they had shifted a lot of it.

Q. It was during the shifting? A. During the shifting, they had not quite finished.

Q. Had they put the ballast on yet—this was before they put the ballast on? A. Just started putting the ballast on.

Q. At that time you could look down between the bales of cork and see the water? A. And see the water.

Q. Could see certain of the casks? A. They had all been wet because the cork above was wet as well.

Q. They were wet but out of water at that time? A. Out of water at that time.

Q. Did you estimate how much of the barrel was out of the water, or how many were out? A. I couldn't tell you.

Q. Did you see the entire barrel? A. No, just see the side of the barrel, some of the cork on top of the barrel, I could see down.

Q. But the water was below the cork and below the level of the top of the barrel? A. Below the level of the top of the barrel" (R. 399).

Since Citrate of Lime is highly insoluble and since the cork in No. 1 Hold could readily have been removed at Halifax, what excuse was there for not removing the top tier? They were placed in the hold with the ship's winches at Messina and there was no reason in the world for their not having been taken out with the same winches at Halifax if any reasonable effort whatsoever had been made to protect this cargo. The known depth of water in the hold and the known height of the casks as they were tiered in the hold, indicate that at no time were the tops of the casks wet, unless possibly by splashing. It cannot be successfully controverted that the top tier could have been removed with comparative ease at Halifax without a diver, and before any ballast was placed on the stern. The top tier constituted one-fourth of all the Citrate of Lime, and was worth $62,500. After the placing of four hundred tons of ballast on the stern of the vessel it is clear that the water in No. 1 Hold dropped from 19.6 feet to 15 feet, a drop of water in the hold of 4½ feet (Capt. Beeby, R. 338, 339). Thus it appears that had the top tier of casks been removed and placed on the after portion of the ship, the third tier from the bottom would then have been partly out of water and this tier could readily have been removed and placed on the deck out of water. The removal of the two top tiers of Citrate of Lime would have lightened the fore-portion of the ship, would have made the two bottom tiers accessible for easy and quick removal by divers and it is probable that not as much ballast would have been necessary as was actually placed on the stern.

There were 503 casks of Citrate of Lime in No. 1 Hold, each weighing about 700 lbs. when dry. There were 125 casks in each tier.

From these facts, which amount almost to a demonstration, we urge it was the duty of the ship at Halifax to have removed from the water at least half of this valuable cargo. To leave it in the hold under water and partly under water was gross negligence to such cargo under all of the circumstances. Since the officers of the ship and Capt. Gilboy, direct representative of the owners, elected not to notify the owners of the cargo or make any inquiries about it, but to assume all responsibility therefor themselves, without independent advice, they ought not now, after all the damage is done, be permitted to say that they did not know anything about Citrate of Lime and did not know whether or not it had dissolved like sugar.

(2) At New York:

Keeping in mind that the surveyors at Halifax, all upon the insistence of Capt. Gilboy, allowed the *Willdomino* to come to New York (first) to discharge cargo, (second) to go into drydock and (third) to make repairs, it is amazing that absolutely no attention was given the Citrate of Lime between August 7th, when the vessel reached New York, and October 2nd, when the letter offering delivery was mailed.

We respectfully urge that on this point the libellants may safely rest their claim upon the testimony of Mr. Williams, President of the Williams Steamship Company, agent of the *Willdomino*, Mr. Paul A. Dwyer, Port Manager of the Williams Steamship Company, and the failure of the claimant to call Capt. Gilboy as a witness.

The testimony of Mr. Williams and Mr. Dwyer, shows clearly that the owners gave no attention what-

soever to the cargo at any time after it was loaded into the *Willdomino,* and that their sole purpose was to operate the ship to New York as economically as possible, coal her at Sydney, an out of the way port where coal was very cheap, and make repairs with all speed, with the sole object of getting the vessel away again on another trip to Europe.

This is a strong statement but we believe that it is fully supported by the testimony.

Mr. Williams testified as follows:

> "Q. Taking into consideration all these things would you say that the work of discharging this cargo other than the citrate of lime which continued from August 9th to August 23rd, inclusive, was expeditiously done? A. Yes."
>
> * * * * * * * *
>
> "Q. Was there any reason why you should do it expeditiously? A. There was.
>
> Q. What was the reason? A. We had a very valuable vessel. We considered her worth so much money per day, and we were very anxious to make the discharge, to make the repairs and get her in service again" (R. 227).

"*Cross examination by Mr. Carpenter*:

> Q. How much did you figure she was worth a day? A. In those days you were able to get about a dollar a ton a day on your net registered demurrage and charter parties. In this case about $4,200 a day.
>
> Q. You figured her worth $4,200 a day to you? A. Yes" (R. 227).

Here then is the reason for the absolute disregard of the Citrate of Lime and its owners by the petitioner and all who represented the petitioner from the moment that the *Willdomino* struck the reef off Cape Canso.

Although the surveyors in Halifax permitted the ship to be rushed to New York to discharge cargo, it appears that no attention was given the Citrate of Lime after the vessel reached New York. The following extracts from the testimony of Mr. Williams show that he *talked* about it and nothing more.

Before the vessel reached New York he made no effort to find out what Citrate of Lime was (R. 67):

> "I don't think I perhaps knew there was any citrate of lime on board" (before the vessel reached New York; R. 67).
>
> *"I believe we discharged it as soon as the vessel was repaired and floated from the dry dock. That was my instructions"* (R. 65).
>
> *"We understood that it was important that we discharge it as soon as possible"* (R. 65).
>
> "I don't remember exactly about that" (Whether he was advised or not that Citrate of Lime was a very valuable commodity; R. 65).
>
> "Q. Did either of them advise you that the characteristics of the commodity were such that they were not badly damaged by first immersion in sea water, but the damage increased very rapidly with the additional time under water? A. I think there was some general talk along that line. I would not remember just who said it" (R. 66).
>
> "Q. Now, what efforts did you make between the 27th of July, when the vessel struck, and the

4th of October, when you tendered the cargo? A. I was more or less in touch with our Mr. Dwyer who had charge of that. We discussed it more or less. We discharged it as soon as we believed it was possible to do so.

Q. Well, I am asking you what you did in an effort to get it out. Did you do anything except discuss it? A. Well, I should say I left that more in charge of Mr. Dwyer. I know that he made every effort to discharge it as soon as possible" (R. 66).

"Q. After getting that report did you make any effort to find out the nature of the cargo in that hold, whether it was valuable or not, whether it was perishable or not? A. I don't think so. I didn't consider it necessary" (R. 68).

The whole cargo of lemons was dumped into the Ocean because condemned by the authorities in Jersey City (R. 68):

"It was naturally our endeavor to get her here as soon as possible to make repairs and discharge her, and get her in operation again. She cost us a large amount of money, and we were naturally interested in hurrying along. That is our business, yes, sir" (R. 68).

The above answer is quite consistent with the petitioner's conduct, which indicated an entire disregard of damaged cargo and an effort directed solely to making repairs and getting the boat into operation again.

"Q. Now, then, I want to know just what you did while this vessel was in New York in trying to get that cargo of Citrate of Lime out of her?

A. Well, as I say, I think we did it as soon as possible. We wanted to discharge it.

Q. That is your opinion. I want to know the acts, what you did, what efforts you made? A. Well, you will have to ask Mr. Dwyer, as I told you, I am not handling cargoes of our ships" (R. 69).

His organization talked over the possibility of not making any effort to remove the Citrate of Lime until the repairs had been completed to the vessel (R. 71). Their conduct shows that they decided on this course.

Mr. Dwyer, the Port Manager for the Williams Steamship Company, who was in charge of the loading and discharging of the vessels of that line, testified, in effect, that nothing was done to remove this cargo until after the repairs had been completed, two months after the vessel reached New York, except to talk about it. Here are some extracts from his testimony:

> The removal of this cargo "was considered and discussed between all of us, these experts that have been referred to, these surveyors that have been referred to, the stevedore, and the decision was reached that it was impossible and impracticable, would have been folly to attempt it with 19 feet of water in the hold of the vessel, covering this cargo" (R. 113).

On cross examination on this point he was asked:

> "Q. Now, you spoke about some conferences when it was decided that you would not unload the Citrate of Lime. Who were present at those conferences? A. Mr. Williams, the stevedore, as I recollect.

Q. The stevedore as you recollect, what was his name? A. Captain Howard.

Q. What was his first name? A. I don't know his first name.

Q. Who else, yourself? A. Myself and Capt. Gilboy, and then there were several surveyors, but I don't recollect their names, don't remember them at this time" (R. 128).

Apparently, this "discussion" was principally if not solely between the ship's owners and their own representatives.

Mr. Dwyer was only twenty-eight years of age (R. 114) and had slight experience for his position (R. 115). He had never had any experience with a damaged vessel or injured cargo (R. 116). This was his first experience of this kind.

Capt. Gilboy was sent to Halifax and handled the situation there as the owners' representative. He was an experienced mariner and it was Gilboy who met the vessel when she entered New York harbor from Halifax (R. 117).

Dwyer said:

"Q. How much of the time were you on board this vessel while she was being unloaded? A. I would visit her once a day or twice a day, • • • usually once in the morning and if possible again in the afternoon."

"Q. Are you the one who gave the orders as to what should be unloaded first • • • A. No, sir.

Q. Gilboy was the one? A. Wasn't any orders given that I know of as to what should be

unloaded first unless discharge the merchandise" (R. 119).

"Q. Did you ever in your life have to engage a stevedore or anybody else to unload cargo that was submerged? A. No, sir; I did not."

"Q. You never had such a situation yourself before? A. No, sir; I did not."

"Q. You did not know what to do? A. Yes, sir; we know what to do; we discussed what we would do" (R. 120).

"Q. Before he (Captain Gilboy) arrived did you make any effort to get a drydock on which to put the *Willdomino*? A. I had nothing to do with drydocking arrangements."

"Q. You had some responsibility because of the cargo, did you? A. Cargo; yes, sir.

Q. Well, knowing that part of the cargo was in the hold No. 1, that was damaged, full of water, what effort did you make to get a drydock to put the vessel? A. I don't know that I made any effort personally.

Q. Did you give directions to anybody to make arrangements for drydock? A. Personally, no."

"Q. Did you know of any one else that did? A. The usual arrangements were being made in our office" (R. 121).

"Q. I want to know what was done in this case. A. I don't recollect what was done in this case.

Q. I want to know what you did in trying to get the cargo out of No. 1 hold, if anything. A. We discussed the situation, as stated before, with the various surveyors and experts that were dealing with the job, and the conclusion reached was that it was impossible and impracticable to

take merchandise out of lower No. 1 hold until such time as the vessel had been repaired, which was done.

Q. Now, having arrived at that conclusion, what did you do? A. That is what we did, sir.

Q. You did nothing? A. That is what we did.

Q. You arrived at that conclusion? A. Yes" (R. 122).

"Q. Were you ever down in No. 1 hold before she was unloaded? A. Just at the time she started to unload.

Q. Were you ever in the hold while the vessel was at 129th Street? A. No, sir.

Q. Or while she was in Jersey City? A. No, sir" (R. 123).

"Q. Do you know how many casks were broken when you finally unloaded her? A. Offhand I could not say the exact number, no, sir."

"Q. Who was it that made the decision that you go ahead and unload the cork and the lemons and other cargo * * *, before you would unload the citrate of lime? A. I don't recollect who it was.

Q. Did you get your orders from Mr. Williams in that regard? A. I don't remember whether we did or not or whether I gave the orders to go ahead and discharge" (R. 124).

"Q. Well, in this particular case, I want to know if you are the man that gave the orders or if you got orders from somebody else? A. I don't recollect if I got the orders to discharge.

Q. You did not have authority to pass on matters like that? A. I had authority to start discharging the ship."

"Q. Did you make any inquiries from any-

body about the properties of citrate of lime? A. No, sir.

Q. Did you ask anybody about the value of citrate of lime? A. No, sir.

Q. That was the first notice—when was the first notice, if you know, that your company gave the Citro-Chemical Company that their citrate of lime had been damaged? A. I don't know, sir" (R. 125).

"Q. When was the first word that your company gave, if you know, to Pfizer & Company that their cargo was damaged? A. I don't know that either, sir.

Q. When was the first time that you knew that the citrate of lime had been damaged? A. I didn't know it. I knew that it had been covered by water."

"Q. I wish you would explain why it is, if you were in command for the Williams Steamship Company, of this situation regarding the damage to *Willdomino* and there was damaged citrate of lime in the hold, with water in it, why is it that you did not notify the libellants here that their cargo was damaged and try to find out something regarding its value and how it could be saved? A. I don't know that we were called upon under our bill of lading to do that. I did not realize that we were called on to notify them" (R. 126).

Dwyer testified at the trial that Capt. Gilboy was in Rotterdam in the employ of the Shipping Board (R. 117).

Gilboy did not testify in this case and his testimony was never taken.

We have therefore shown, out of the mouths of the owners of the ship, that absolutely no care was given

to the Citrate of Lime and no effort was made to remove it or save it.

The following witnesses testified that the cargo could have been removed at Halifax by the use of divers:

Wilson of the London Salvage Association:

> "I should not think it would be very difficult to get them out" (R. 592).

Thirkell, First Officer of the *Willdomino*:

> "It could have been discharged by divers, but it would have taken a long time, possibly three weeks, all depending on the nature of the cargo to be discharged" (R. 576).

Brockwell, the Second Officer:

> "The casks could have been discharged by the use of a diver" (R. 393).

All of the above were claimant's witnesses.

Mr. Howard, the claimant's own stevedore, who discharged all the cargo, on direct examination was asked:

> "Q. *Would you tackle such a job as that on stevedoring rates?* A. Well, I have got no equipment; *that is a diver's job*" (R. 142).

On page 144 Mr. Howard said that a diver could have worked on these casks, and that when he finally got them out in October the casks had burst, and that he got it out the best way he could.

When asked whether it would have been dangerous work for a diver, he replied:

> "Oh, I don't know that it would have been attended with a lot of danger for a diver, because

there wasn't a great amount of water; but as far as a stevedore is concerned it was impossible. I couldn't do anything with them" (R. 144).

On cross examination Mr. Howard admits he gave the Williams Steamship Company a rate for unloading the cargo in No. 1 hold.

"I gave them a rate for the whole cargo.

Q. Did you give them two rates for unloading that particular vessel that time, one for unloading the holds that contained the lemons and the casks of citronate, and still another rate for unloading the entire cargo? A. Yes, sir; there were various prices in the contract" (R. 145).

Mr. Hansen, a diver, called as a witness by the libellants, employed by the Baxter Wrecking Corporation of New York and a diver of thirty-three years' experience, said that he had removed all kinds of cargo under just such circumstances as in this case, including large casks under water.

"Q. Have you done that sort of thing before? A. Why, yes, sir; we have to do those things for to salvage the cargo and also for to stop up the vessel.

Q. Now, how would you get the casks out of the hold when they are under water? A. Why, casks, we generally use what we call barrel hooks, and if the cask is poor, then we have to use chain slings.

Q. And put the chain slings around the casks? A. Yes.

Q. And haul them out with a winch? A. Yes, sir" (R. 764).

Mr. Hansen said that the water in the hold wouldn't make much difference and that they could remove twenty-four or twenty-five casks in eight hours. One diver with equipment would have cost between $45 and $50 for an eight hour day; that divers frequently work in three eight hour shifts a day. In other words it would have been entirely possible to have removed the 503 casks of Citrate of Lime in seven working days of three shifts each at a cost of not in excess of $1,050 (R. 764, 765).

Mr. Jordan, a consulting engineer and marine surveyor, testified for libellants that he had personally discharged the whole of general cargoes from No. 1 holds, when flooded, and had the representative of every commodity in the cargo examine it as it came out of the hold; that the discharging from under water is done in different ways.

> "Sometimes we have employed divers, but usually we have made the bottom of the ship as tight as possible and pumped the hold out, which enables us to discharge that cargo with men in hip boots" (R. 774).

Mr. Jordan also said that:

> "If it was considered inadvisable to take it out while the vessel was in the water, it is a perfectly easy thing to take it out the first time she was in drydock, put it in the 'tween decks or on deck and then when she goes off the dock to get tenders, or whatever you want, to take it from the deck" (R. 775).

Mr. Jordan, on page 777, gave an almost exactly similar case of the Steamship *Cheltonian,* which ran on

the rocks in Newfoundland. She was put ashore with her nose on the shore, so as to prevent sinking, and the cargo was all discharged out of No. 1 in Sydney, Cape Breton, and the vessel then taken around to Halifax and put in drydock. In that case Mr. Jordan said:

> "The purpose of taking the cargo out was that it should not get any further damaged. We notified every consignee of that cargo, we had automobile tires, sausage skins, provisions, grain, all kinds of general cargo; all of the shippers of that cargo were notified, and they sent their representatives down to recondition that cargo on the spot so that no further damage should happen to it" (R. 777-778).

Mr. McNaught, a consulting engineer, who had been in the shipping business for forty-three years said:

> "The logical method would have been to have tested the inflow of water with pumps and if you could have overcome the influx of water by one or two pumps then you could have discharged her cargo, completing your suction lines down to the bottom of the hold as your cargo was recovered" (R. 785).

He also said that divers are frequently used to take cargoes out of a hold that is partly full of water, and cited an instance of a Barber line steamer where general cargo was taken out of No. 1 hold under water (R. 786).

Mr. McNaught, who had examined the specifications covering the damage to the *Willdomino*, said that his effort would have been to stop the holes in No. 1 hold.

> "The damage to No. 1 hold itself was not considerable, only extending to two floors in the for-

> ward end of the hold, and it is my impression that this could readily have been stopped and the No. 1 hold pumped out and the cargo recovered" (R. 787).

Mr. McNaught said that with the vessel afloat a diver would have plugged the holes with timbers at an expense of not exceeding $700, as an outside figure (R. 788). Mr. McNaught said that with the vessel on dry dock temporary repairs would have been made by just plugging the hole at an expense of not exceeding $250. Thirty-six hours would have been sufficient for plugging the hole (R. 788).

The testimony of Mr. Jordan that it was entirely practicable to have taken the cargo out of No. 1 hold and placed it on the deck while the vessel was in dry-dock, is not mere surmise. Mr. Thirkell, First Officer of the vessel, testified that as a matter of fact a number of barrels were taken out and placed on deck when the ship was on dry dock. He said they were never discharged, never taken out of the ship, just removed.

> "Q. How many barrels could have been taken out and placed on deck? A. I don't know, they would not allow you to place them all on deck" (R. 383).

And the Second Officer, Mr. Brockwell, said that the casks of citrate could have been put on the deck while the vessel was in dry dock (R. 402). Haffey saw some on deck in September (R. 676).

Why part of the casks were taken out of the vessel when she was in dry dock and again placed back in No. 1 hold and never unloaded prior to October 2nd, is a

mystery, but it is quite apparent that this is what was done. Capt. Gilboy could have explained this. From the failure of the claimant to produce Capt. Gilboy, we have the right to argue that he would have testified that he insisted to Mr. Williams that the Citrate of Lime be discharged by divers, or by the use of pumps or by plugging the hole, as libellants' witnesses testified has been done in many instances. Their failure to produce him or to take his testimony or to explain why his testimony was not taken, reflects most seriously on the claimant's case and leaves the natural inference that his testimony would have been harmful to the petitioner.

We respectfully urge that the testimony mentioned above demonstrates:

(1) That at least half of the Citrate of Lime in No. 1 hold could have been easily removed at Halifax; that the remaining half, if left in the hold until the vessel reached New York, could have been removed, either by the use of pumps or divers, at a gross expense of not over $1,000.

(2) That the vessel and her owners made no honest effort to protect or save this cargo. They gave it very little, if any, consideration.

(3) The Citrate of Lime, even when wet, had a very large salvage value, which it was the duty of the owners of the vessel to protect. Had any sort of care whatsoever been given the cargo, over 50% of its value would have been saved.

Every sound business instinct must condemn the failure of the vessel and her owners to protect this

shipment. Such conduct as this by the owners of a damaged vessel, towards damaged cargo, should not be encouraged, slighted or disregarded. Ship owners must have at least as high regard for cargo as they have for their own interest in getting their highly valuable vessels back again into trade to earn large freight money. Doubtless the owners of the ship figured that their liability was only $100 per package, $50,000 altogether, and they would make this amount of money in two weeks if they could only rush the ship back into service. This reasoning, however, does not relieve a ship owner from his duty to damaged cargo. As Mr. Justice Clifford said in the case of *The Niagara* (*supra*, p. 79):

> "It must not be understood that a master can abandon his ship and cargo upon any such grounds as are proved by the evidence in this case, or, indeed, upon any other, so far as the goods are concerned, when it is practicable for human exertions, skill and prudence, to save them from the impending peril."

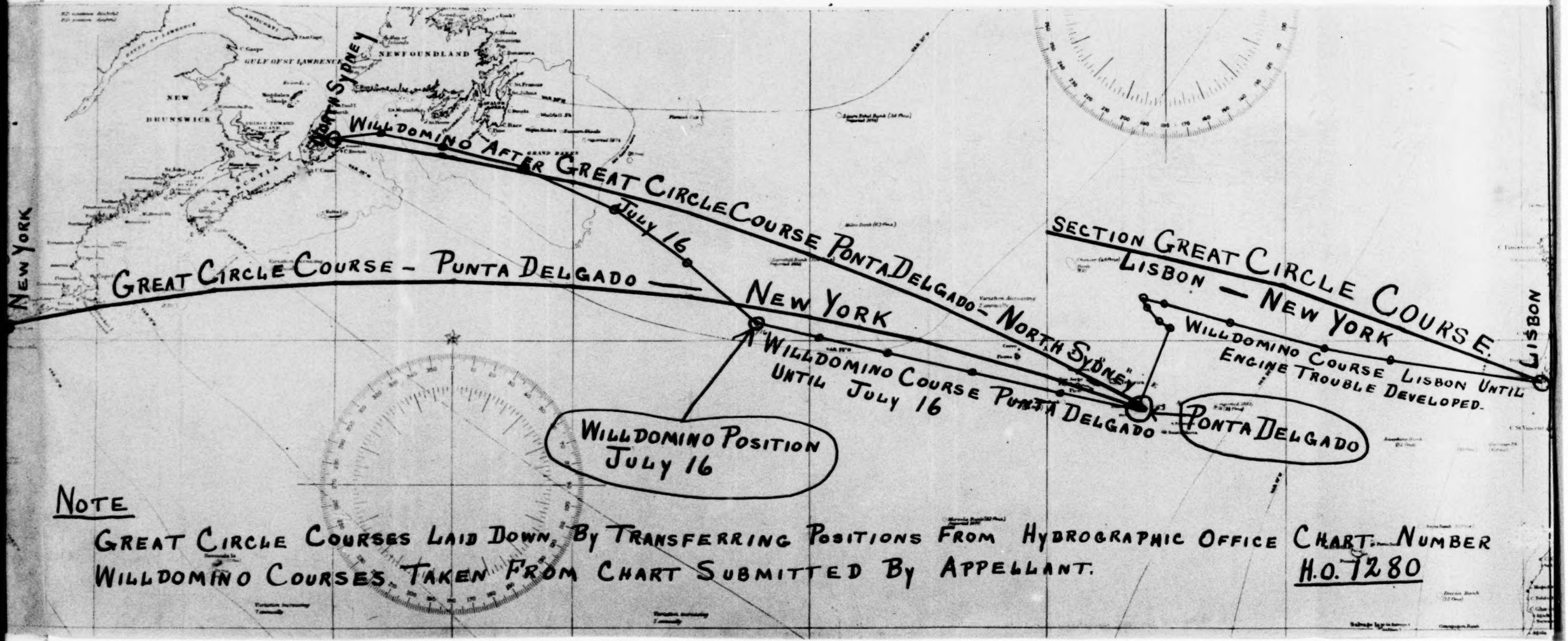
POINT V.

The decrees of the Circuit Court of Appeals should be affirmed.

January 16th, 1926.

Respectfully submitted,

D. ROGER ENGLAR,
JAMES D. CARPENTER, Jr.,
Counsel for Respondents.


NEW YORK
GREAT CIRCLE COURSE - PUNTA DELGADO
NEW YORK
WILLDOMINO AFTER GREAT CIRCLE COURSE PONTA DELGADO - NORTH SYDNEY
JULY 16
NORTH SYDNEY
WILLDOMINO COURSE PUNTA DELGADO UNTIL JULY 16
WILLDOMINO POSITION JULY 16
PONTA DELGADO
SECTION GREAT CIRCLE COURSE. LISBON — NEW YORK
WILLDOMINO COURSE LISBON UNTIL ENGINE TROUBLE DEVELOPED.
LISBON
NOTE
GREAT CIRCLE COURSES LAID DOWN, BY TRANSFERRING POSITIONS FROM HYDROGRAPHIC OFFICE CHART. NUMBER H.O. 1280
WILLDOMINO COURSES TAKEN FROM CHART SUBMITTED BY APPELLANT.

SUPREME COURT OF THE UNITED STATES.

Nos. 29 and 30.—October Term, 1926.

Steamship "Willdomino," her engines, boilers, etc., Petitioner, vs. Citro Chemical Company of America.	On Writs of Certiorari to the United States Circuit Court of Appeals for the Third Circuit.
Steamship "Willdomino," her engines, boilers, etc., Petitioner, vs. Charles Pfizer & Company, Inc.	

[January 3, 1927.]

Mr. Justice McReynolds delivered the opinion of the Court.

Respondents instituted proceedings *in rem* against the "Willdomino," a British vessel, to recover the value of five hundred and three (168 and 335) casks of citrate of lime owned by and consigned to them, which she accepted June 10, 1920, at Messina, Sicily, for delivery at New York, subject to issued bills of lading. After leaving Messina the vessel put in at Gibraltar, Lisbon, Ponta Delgada (The Azores), North Sydney (Nova Scotia) and Halifax. While passing between the last-named ports, through negligent navigation, she struck a reef or submerged object; water filled her forward compartment and respondents' goods were so damaged that they refused acceptance at destination. The causes were heard upon the same record and present identical questions. In the District Court petitioner prevailed; but the Circuit Court of Appeals thought otherwise and entered judgments for the damages sustained. 300 Fed. 5.

The petition for certiorari alleges that the causes involve three questions—

1. When in normal condition citrate of lime contains sixty-four per centum of citric acid; the cargo offered for delivery at

New York contained sixty per centum of citric acid. Was it in sound condition?

2. Having regard to the bills of lading, did the "Willdomino" deviate when she went to North Sydney?

3. Must there be causal connection between the lack of due diligence to make a vessel seaworthy and the accident from which damage results in order to deprive the vessel of the exemptions granted by Section 3 of the Harter Act?*

We confine our consideration to the points specified by the petition and agree with the conclusions of the Circuit Court of Appeals concerning the essential facts, although they are radically different from those of the trial court. It is unnecessary now to discuss the evidence—that was adequately done below.

The first of the above-stated questions has not been pressed here and is either abandoned or inconsequential.

The Circuit Court of Appeals, we think, rightly held that the "Willdomino" made an inexcusable deviation from the permitted course when she went to North Sydney. Consequently, she became liable as an insurer for any damage suffered by the cargo. *St. Johns Corp.* v. *Companhia Geral, etc.*, 263 U. S. 119, 124; *The Citta di Messina*, 169 Fed. 472, 474, 475; *The Sarnia*, 278 Fed. 459.

Except as to inserted name of the consignee and number of casks the printed bills of lading were identical. They acknowledge receipt of ". . . casks citrate of lime" "for shipment, in apparent good order and condition, from Ferd. Baller & C., to be transported by the good Steamship Willdomino to New York, with liberty to call at intermediate ports or any port or ports in or out

*"SEC. 3. That if the owner of any vessel transporting merchandise or property to or from any port in the United States of America shall exercise due diligence to make the said vessel in all respects seaworthy and properly manned, equipped, and supplied, neither the vessel, her owner or owners, agent, or charterers shall become or be held responsible for damage or loss resulting from faults or errors in navigation or in the management of said vessel nor shall the vessel, her owner or owners, charterers, agent, or master be held liable for losses arising from dangers of the sea or other navigable waters, acts of God, or public enemies, or the inherent defect, quality, or vice of the thing carried, or from insufficiency of package or seizure under legal process, or for loss resulting from any act or omission of the shipper or owner of the goods, his agent or representative, or from saving or attempting to save life or property at sea, or from any deviation in rendering such service." Act of February 13, 1893, (the Harter Act) c. 105, 27 Stat. 445.

of the customary route in any order, to receive and discharge coal, cargo, passengers, and for any other purposes." And they provide: "The ship has liberty of filling up and/or bunkering at any port or ports in or out of the way." "Filling up only in ports on the way westwards of New York," is written at the bottom of each bill, and all agree that *of* therein really means *to*.

The "Willdomino" left Messina with five hundred and sixty-nine tons of coal—not sufficient under any circumstances to carry her to New York. At Gibraltar, a customary coaling port, she took on four hundred tons and left there for Lisbon with seven hundred and fifty-six tons in her bunkers. From Lisbon she cleared for New York—two thousand, nine hundred and five miles away—with but six hundred and fifty-one tons, an inadequate amount. When five days out from Lisbon an accident befell the high-pressure turbine and she put into Ponta Delgada for repairs. Finding that port not properly equipped therefor, the master decided to proceed on the low-pressure turbine alone. She took on two hundred and fifty tons of coal and cleared for New York—two thousand, two hundred and ninety miles—with six hundred and twenty-nine tons on board. This was grossly inadequate for that distance, as her officers knew. After proceeding five or six days toward New York it became manifest that there was not enough coal to make that port and thereupon she radically changed her course and proceeded to North Sydney, where she arrived with sixty-two tons.

It is clear enough that for some reason not quite definitely disclosed the officers of the vessel under direction of the owners, while realizing that there was not enough coal on board for such voyage, wished to create the impression that she left Ponta Delgada bound directly for New York, when in truth they intended to take her to North Sydney under pretense of an emergency.

In such circumstances by proceeding for five or six days in the direction of New York the vessel deviated from any permissible course to North Sydney, even if it be true, as her counsel now maintain, that she had the right to go and intended to proceed to the latter port from Ponta Delgada.

If, on the other hand, the vessel started from Ponta Delgada with the intention of going to New York, the only emergency claimed to justify departure from the ordinary course and pro-

cedure to North Sydney arose from wilful failure to take on sufficient coal.

An emergency sufficient to excuse a departure cannot arise out of circumstances deliberately planned nor from gross negligence.

Whether the intention was to proceed directly from Ponta Delgada to New York, as counsel for the petitioner are said to have maintained below, or to North Sydney, as they now insist, there was inexcusable departure.

"In the law maritime a deviation is defined as a 'voluntary departure without necessity or any reasonable cause from the regular and usual course of the ship insured.'" *Constable* v. *National Steamship Co.*, 154 U. S. 51, 66. "The voyage must be prosecuted without unnecessary delay or deviation. The shipowner's undertaking is that he will be diligent in carrying the goods on the agreed voyage and will do so directly without any unnecessary deviation." *Carver on Carriage of Goods by Sea,* 6th Ed., 393.

Nothing in the present bills of lading suggests that the vessel might wander about the sea, heading first for one port, and then without adequate reason for another. If the "Willdomino" had the privilege of going from Ponta Delgada to North Sydney and intended so to do, it was her duty to take the ordinary course. This she did not do.

What has been said of the second question renders it unnecessary to discuss the third.

The decrees of the Circuit Court of Appeals are

Affirmed.

A true copy.

Test:

Clerk, Supreme Court, U. S.